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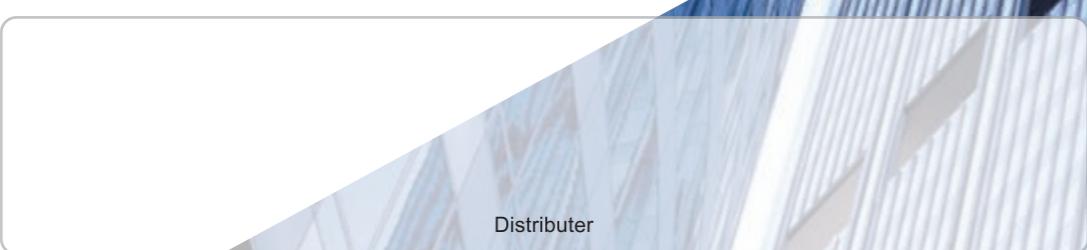
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Gree is committed to continuously improving its products to ensure the highest quality and reliability standards, and to meet local regulations and market requirements.

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GC-1412-02



Distributer



CAC T1 50Hz R410a/R134a

**G**  
**CAC**  
T1 50Hz R410a/R134a

Gree Electric Appliances Inc. of Zhuhai, founded in 1991, is the world's largest air conditioner enterprise integrating R&D, manufacturing, marketing and service.

- 2012, Gree became the first listed electrical appliances enterprise in China with sales revenue over 16 billion USD (RMB 100 billion).
- 2013, GREE's sales revenue exceeded 19 billion USD.

Gree has been ranked on the Fortune Magazine as one of the Top 100 Chinese listed companies for 12 consecutive years.

Thanks to 300 million user's choices, Gree products are sold widely in more than 200 countries and regions. Today Gree's annual production capacity of RAC and CAC are more than 60 million sets and 5.5 million sets respectively.

Action makes the future and innovation makes achievement. Looking forward, Gree will firmly persist in the business philosophy of passion, innovation and realization. We aim to build a century's standing air conditioning enterprise, to create a better life for human.

For the Clearer Sky and Greener Earth.



1 in 3 air conditioners sold worldwide is made by Gree

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مکیفر کاری مکیف الہواء  
air conditioner

랭온풍기 エアコン エアコン  
एर कनිଡ්ගනර

空调 climatiseur  
acondicionador de aire  
ar condicionado

300,000,000 users

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No. 1  
air conditioner  
manufacturer



## Some Parts

	<b>Golden fin condenser</b> Anti-corrosive performance of golden fin is 3 times better than normal Fin.
	<b>Inner groove copper</b> Special thickened inner groove copper tube enhances heat exchanging performance.
	<b>Built-in drain pump</b> The drain pump can pump the condensation to a high level. It facilitates condensation draining from the indoor unit and makes the installation of indoor unit easier.
	<b>Washable filter</b> Filters are easy to dismantle and install. You can use dirt collector or water to clear away the dust.
	<b>Quality motor</b> Quality motor makes operation steady and in low noise.
	<b>Auxiliary electric heater</b> Auxiliary heater greatly improves heating capacity and saves energy.
	<b>Slave and master wired controller</b> One indoor unit can be connected with two wired controllers to realize controlling of the same indoor unit from different control points.
	<b>Long connection pipe design</b> The total length of connection pipe reaches 1000m, which greatly improves the project flexibility of the unit.

## High Efficiency & Energy Saving

	<b>High efficiency</b> The air conditioner is designed to high energy efficiency and to realize power saving.
	<b>Intelligent defrosting</b> It performs defrosting intelligently when necessary, thus improving heating efficiency and saving energy.
	<b>Energy saving function</b> When this function is activated, the temperature setting is only in limited range, so as to save energy.
	<b>All DC inverter technology</b> All motors adopt DC inverter technology, which greatly improves energy efficiency.

## Comfortable & Healthy

	<b>Vertical swing</b> Air discharge flaps can automatic move vertically for efficient air and temperature distribution throughout the room.
	<b>Horizontal swing</b> Air discharge Louvre can automatic move horizontally for efficient air and temperature distribution throughout the room.
	<b>Anti-cold function</b> The indoor unit will not blow in the winter if the air is not warm enough.
	<b>Turbo function</b> To run with strong power and make you feel comfortable(cool or warm) quickly.
	<b>Fresh air supply ventilation</b> The unit can introduce a certain percentage of fresh air to satisfy the fresh air requirement.
	<b>Comfortable sleeping mode</b> The setting temperature and the indoor noise can be adjusted to a more comfortable level when you set the "sleeping mode".
	<b>Quiet function</b> Unit is ensured to operate with the lowest noise by ultra-low fan speed and auto adjustment according to system parameter.

## Convenience

	<b>Memory function</b> Unit is able to remember the operations before power failure and automatically returns to those operations when power restored.
	<b>Compact design</b> Unit is designed with smaller dimension, which is easy to install and transport, and saves the cost.
	<b>Easier maintainability</b> The unit is designed to be easier for maintenance and component replacement.
	<b>Auto addressing technology</b> The new generation of indoor unit applies auto addressing technology, which greatly reduces project debugging time and error rate.

## Reliability

	<b>Auto clean</b> After unit turn off , the indoor fan will keep running in low speed for a moment to dry the inner components and parts, in order to prevent mildew and keep users healthy.
	<b>Self-diagnosis</b> Malfunction codes are shown on the display panel for fast and easy maintenance when problem occur.
	<b>Low voltage startup</b> Unit is able to safely start when voltage is below standard.
	<b>Low temperature heating</b> Unit is able to start and operate in normal when the ambient temperature is lower than -20°C and heating capacity remains still.
	<b>Modular operating</b> Several units can operate together as modules, so that capacity output control is more precise, and also higher reliability.
	<b>Comprehensive protection</b> The unit is designed with various of protection functions to ensure the reliability.

## Versatility

	<b>High ESP</b> The external static pressure range is higher, which ensures longer delivery distance for air to provide powerful cooling.
	<b>Wide voltage range</b> The unit can operate in a wide range of voltage, greatly reducing the impact of voltage fluctuation.
	<b>Wide operation range</b> Unit can operate in wide range, greatly reducing the ambient temperature limitation.
	<b>Multi fan speed</b> The fan can operate with multi speeds and satisfy different air flow volume requirement.
	<b>Modular structure</b> High efficiency compressor presents reliable performance.

## Control

	<b>24 hour timer</b> Unit can be set to turn on or turn off at anytime in a day.(The timing interval is 5-minute.)
	<b>Weekly timer</b> Unit can be set to start heating or cooling anytime on a daily or weekly basis.
	<b>°C/°F switch</b> Under status of unit off, press MODE and "-" buttons simultaneously to switch °C/°F.
	<b>Clock display</b> Time is shown on remote controller .
	<b>Child lock</b> It avoids child's wrong operation on the remote controller.
	<b>Key-card control</b> The Key-card control function is specially designed for the hotel rooms. By removing the key-card the air conditioner, it can be automatically switched to stand-by status.
	<b>Centralized control</b> Starts, stops and regulates the air conditioner from a distance.
	<b>Long-distance monitoring</b> Long-distance monitoring enables the unit to be controlled and monitored from a long distance.
	<b>Shield function</b> Remote control the indoor unit and shield the functions of wired controller which include ON/OFF, temp or mode setting, energy-saving function, etc.
	<b>Human engineering operation</b> Adopts the technologies of auto addressing, non-polar communication and auto debugging, which improves project efficiency.
	<b>Floor Heating Debugging</b>

# LIGHT COMMERCIAL AC

**U-Match  
Duct Split Unit**



# U-Match

## High Efficiency Series

It is a kind of split system that the outdoor unit can be freely connected to different types of indoor units according to various indoor decoration requirements.



- Double ambient temperature sensor design makes a precision temperature monitoring.
- Low start-up current thanks to power delay control design.
- Higher efficiency thanks to sine wave DC inverter compressor control.
- High reliability and easy maintenance thanks to one piece integrated PCB board.
- Stable cooling under -15°C and heating under -10°C outdoor environment temperature.



## Indoor Unit

Duct type	Cassette type	Floor ceiling type
<ul style="list-style-type: none"> <li>Drain pump fitted as optional with increased lift of 1100mm.</li> <li>Fresh air inlet and air valve control function improve the indoor air quality.</li> <li>Flexible air in/outlet and condensing water outlet direction according to different installation requirements.</li> <li>Optimized air duct design improves the performance and lower the noise.</li> </ul>	<ul style="list-style-type: none"> <li>Drain pump fitted as standard with increased lift of 1100mm.</li> <li>Special low noise fan design.</li> <li>Different swing angle design for cooling and heating mode for better comfort.</li> </ul>	<ul style="list-style-type: none"> <li>3-D air flue design.</li> <li>Easy replacement of motor and fan blade thanks to clamp block propeller design.</li> <li>Different swing angle design for cooling and heating mode for better comfort.</li> </ul>

Item	Nominal operating condition (temperature)			Operation range (temperature)		
	Outdoor condition DB (°C)	WB (°C)	Indoor condition DB (°C)	WB (°C)	Outdoor condition DB (°C)	Indoor condition DB (°C)
Cooling	35	24	27	19	-15~48	
Heating	7	6	20	-	-10~24	

## Indoor Units Lineup

Capacity Index (BTU/h)		9K	12K	18K	24K	30K
Outdoor Unit	Model	GUHD09NK3FO	GUHD12NK3FO	GUHD18NK3FO	GUHD24NK3FO	GUHD30NK3FO
Picture						
Duct	Model	GFH09K3FI	GFH12K3FI	GFH18K3FI	GFH24K3FI	GFH30K3FI
Picture						
Indoor Unit	Model	—	GKH12K3FI	GKH18K3FI	GKH24K3FI	GKH30K3FI
Cassette	Picture					
Floor Ceiling	Model	GTH09K3FI	GTH12K3FI	GTH18K3FI	GTH24K3FI	GTH30K3FI
Picture						

Capacity Index (BTU/h)		36K	42K	48K	60K
Outdoor Unit	Model	GUHD36NK3FO	GUHD36NM3FO	GUHD42NK3FO	GUHD42NM3FO
Picture					
Duct	Model	GFH36K3FI	GFH36K3FI	GFH42K3FI	GFH42K3FI
Picture					
Indoor Unit	Model	GKH36K3FI	GKH36K3FI	GKH42K3FI	GKH42K3FI
Cassette	Picture				
Floor Ceiling	Model	GTH36K3FI	GTH36K3FI	GTH42K3FI	GTH42K3FI
Picture					

Model	Outdoor unit		GUHD09NK3FO		GUHD12NK3FO		
	Indoor unit		Duct GPH09K3F1	Floor Ceiling GTH09K3F1	Duct GPH12K3F1	Cassette GKH12K3F1	Floor Ceiling GTH12K3F1
Capacity	Cooling	kW	2.7	2.7	3.5	3.5	3.5
		BTU/h	9212	9212	11942	11942	11942
	Heating	kW	2.9	2.9	3.8	3.8	3.8
		BTU/h	9895	9895	12966	12966	12966
SEER/SCOP	WW	5.6/3.8	6.1/3.8	5.6/4.0	5.6/4.0	6.1/4.0	6.1/4.0
Power supply	Ph/V/Hz	1/220-240/50		1/220-240/50		1/220-240/50	
Power input	Cooling	kW	1.7	1.7	1.9	1.9	1.9
	Heating	kW	1.6	1.6	1.8	1.8	1.8
Current input	Cooling	A	3.9	3.9	5.4	5.0	5.0
	Heating	A	3.7	3.7	4.9	4.9	4.9
Refrigerant charge volume	kg	1.2	1.2	1.2	1.2	1.2	1.2
Indoor unit	Air flow volume(H/M/L)	CFM	383	353	441	412	412
		m³/h	850	600	750	700	700
	ESP	Rated Pa	25	—	25	—	—
		Range Pa	0-30	—	0-30	—	—
Panel	Sound pressure level (SH-HML)	dB(A)	36/34/28/26	31/29/26/24	37/36/34/28	46/45/41/36	35/33/30/27
	Dimension (W×D×H)	Outline mm	925×665×250	1220×700×225	1037×721×266	596×598×240	1220×700×225
		Package mm	1023×748×320	1343×823×315	1123×798×323	773×733×300	1343×823×315
	Net weight/Gross weight kg	27/32	38/47	33/38	20/24	39/48	—
Outdoor unit	Dimension (W×D×H)	Outline mm	—	—	—	670×670×50	—
		Package mm	—	—	—	763×763×105	—
	Net weight/Gross weight kg	—	—	—	—	3.5/5.0	—
	Sound pressure level dB(A)	52		52		52	
Connection pipe	Outer diameter	Liquid inch(mm)	φ1/4(6.35)	—	—	φ1/4(6.35)	—
		Gas inch(mm)	φ3/8(9.52)	—	—	φ3/8(9.52)	—
	Max.distance	Height/Length m	—	15/20	—	15/20	—
	Loading quantity	40GP/40HQ	—	128/141	96/112	114/131	127/138
127/138		96/112		114/131		128/141	

Model	Outdoor unit		GUHD30NK3FO		GUHD36NK3FO			
	Indoor unit		Duct GPH30K3F1	Cassette GKH30K3F1	Floor Ceiling GTH30K3F1	Duct GPH36K3F1	Cassette GKH36K3F1	Floor Ceiling GTH36K3F1
Capacity	Cooling		kW	8.3	8.3	10.0	10.0	10.0
		BTU/h	28320	28320	29002	34120	34120	34120
	Heating	kW	9.2	9.2	12.0	12.0	12.0	12.0
		BTU/h	31390	31390	40944	40944	40944	40944
SEER/SCOP	WW	6.1/4.0	6.14/4.0	6.1/4.0	6.1/4.0	5.6/4.0	6.1/4.0	6.1/4.0
Power supply	Ph/V/Hz	1/220-240/50		1/220-240/50		1/220-240/50		
Power input	Cooling	kW	3.9	3.9	4.65	4.65	4.75	4.75
	Heating	kW	4.1	4.1	4.75	4.85	4.85	4.85
Current input	Cooling	A	12.4	12.4	15.0	15.0	15.0	15.0
	Heating	A	12.0	12.0	15.5	16.2	15.8	15.8
Refrigerant charge volume	kg	2.4	2.4	3.5	3.5	3.5	3.5	3.5
Indoor unit	Air flow volume(H/M/L)	CFM	824	883	883	1236	1095	1118
		m³/h	1400	1500	1500	2100	1860	1900
	ESP	Rated Pa	37	—	37	—	—	—
		Range Pa	0-75	—	—	0-100	—	—
Panel	Sound pressure level (SH-HML)	dB(A)	47/46/44/40	49/48/45/40	49/46/44/38	53/52/48/44	51/49/46/43	54/53/51/46
	Dimension (W×D×H)	Outline mm	1279×558×268	840×840×320	1420×700×245	1226×775×290	840×840×320	1420×700×245
		Package mm	1348×597×283	963×963×409	1548×828×345	1338×877×305	963×963×409	1548×828×345
	Net weight/Gross weight kg	34/39	31/38	48/56	46/53	31/38	48/56	48/56
Outdoor unit	Dimension (W×D×H)	Outline mm	—	950×950×60	—	—	950×950×60	—
		Package mm	—	1028×1043×130	—	—	1028×1043×130	—
	Net weight/Gross weight kg	—	7.0/11	—	—	—	7.0/11	—
	Sound pressure level dB(A)	58		63		63		
Connection pipe	Outer diameter	Liquid inch(mm)	φ3/8(9.52)	—	—	φ3/8(9.52)	—	
		Gas inch(mm)	φ5/8(15.9)	—	—	φ5/8(15.9)	—	
	Max.distance	Height/Length m	—	15/30	—	15/30	—	
	Loading quantity	40GP/40HQ	—	76/89	49/69	57/67	45/60	43/50
76/89		49/69		57/67		45/60		

Model	Outdoor unit		GUHD18NK3FO		GUHD24NK3FO			
	Indoor unit		Duct GPH18K3F1	Cassette GKH18K3F1	Floor Ceiling GTH18K3F1	Duct GPH24K3F1	Cassette GKH24K3F1	Floor Ceiling GTH24K3F1
Capacity	Cooling	kW	5.0	5.0	5.0	7.0	7.0	7.0
		BTU/h	17060	17060	17060	23884	23884	23884
	Heating	kW	5.6	5.6	5.6	8.0	8.0	8.0
		BTU/h	19107	18766	19107	27296	27296	27296
SEER/SCOP	WW	5.6/3.8	5.6/3.8	6.1/4.0	6.1/4.0	6.1/4.0	5.6/4.0	5.6/4.0
Power supply	Ph/V/Hz	1/220-240/50		1/220-240/50		1/220-240/50		
Power input	Cooling	kW	2.5	2.5	3.8	3.8	3.8	3.8
	Heating	kW	2.4	2.4	4.0	4.0	4.0	4.0
Current input	Cooling	A	7.5	7.2	10.1	10.1	10.1	10.1
	Heating	A	7.4	7.6	10.2	10.2	10.2	10.2
Refrigerant charge volume	kg	1.4	1.4	1.4	2.2	2.2	2.2	2.2
Indoor unit	Air flow volume(H/M/L)	CFM	569	447	589	624	765	706
		m³/h	1000	760	1000	1400	1300	1200
	ESP	Rated Pa	25	—	25	—	—	—</td

Model	Outdoor unit		GUHD42NM3FO		GUHD48NK3FO	
	Indoor unit	Duct	Cassette	Floor Ceiling	Duct	Cassette
Capacity	Cooling	kW	11.5	11.0	11.5	14.0
		BTU/h	39238	37532	39238	47768
SEER/SCOP	Heating	kW	13.5	12.5	13.5	15.5
		BTU/h	46062	42650	46062	52886
Power supply	WW	5.6/4.0	6.1/4.0	5.6/4.0	6.1/3.8	6.1/3.8
Power input	Ph/V/Hz	3/380-415/50			1/220-240/50	
Current input	Cooling	A	6.9	6.7	6.7	21.3
	Heating	A	6.7	6.8	6.5	20.8
Refrigerant charge volume		kg	3.7	3.7	4.0	4.0
Indoor unit	Air flow volume(H/M/L)	CFM	1236	1095	1118	1412
		m³/h	2100	1860	1900	2400
Panel	ESP	Pa	37	—	—	50
	Range	Pa	0-100	—	—	0-125
Outdoor unit	Sound pressure level (SHH/HML)	dB(A)	53/52/48/44	51/49/46/43	55/54/52/47	55/53/48/45
	Dimension (W×D×H)	Outline	mm	1226×775×290	840×840×320	1420×700×245
Connection pipe	Package	mm	1338×877×305	963×963×409	1548×828×345	1423×837×455
	Net weight/Gross weight	kg	46/53	31/38	50/58	56/65
Loading quantity	Dimension (W×D×H)	Outline	mm	950×950×60	—	1040×1040×65
	Package	mm	—	1028×1043×130	—	—
Net weight/Gross weight	kg	—	—	7.0/11	—	1137×1137×140
					—	8.0/12
Sound pressure level		dB(A)	61	—	—	59
	Dimension (W×D×H)	Outline	mm	958×412×1349	—	958×412×1349
Net weight/Gross weight	Package	mm	—	1043×453×1500	—	1043×453×1500
	kg	—	—	108/118	—	105/115
Outer diameter	Liquid	inch/mm	φ3/8(9.52)	—	—	φ3/8(9.52)
	Gas	inch/mm	φ5/8(15.9)	—	—	φ5/8(15.9)
Max distance	Height/Length	m	—	30/50	—	30/50
	Load quantity	40GP/40HQ	—	52/58	45/48	43/47
Net weight/Gross weight		kg	—	—	38/48	43/50
					—	43/47

Model	Outdoor unit		GUHD48NM3FO		GUHD60NM3FO	
	Indoor unit	Duct	Cassette	Floor Ceiling	Duct	Cassette
Capacity	Cooling	kW	14.0	14.0	14.0	18.0
		BTU/h	47768	47768	47768	54592
SEER/SCOP	Heating	kW	15.5	16.0	16.0	16.5
		BTU/h	52886	54592	54592	56298
Power supply	WW	5.6/3.8	6.6/3.8	5.6/4.0	5.6/3.8	6.1/4.0
	Ph/V/Hz	3/380-415/50			3/380-415/50	
Power input	Cooling	kW	6.7	6.7	6.6	7.4
	Heating	kW	6.7	6.7	6.7	7.2
Current input	Cooling	A	8.80	8.90	8.60	9.70
	Heating	A	7.80	7.80	7.80	8.2
Refrigerant charge volume		kg	4.0	4.0	4.0	5.0
Indoor unit	Air flow volume(H/M/L)	CFM	1412	1354	1354	1768
		m³/h	2400	2300	2300	3000
Panel	ESP	Pa	50	—	—	50
	Range	Pa	0-125	—	—	0-150
Outdoor unit	Sound pressure level (SHH/HML)	dB(A)	55/53/49/45	53/52/47/41	56/55/50/46	57/56/54/49
	Dimension (W×D×H)	Outline	mm	1340×750×350	910×910×290	1700×700×245
Connection pipe	Package	mm	1423×837×455	1023×993×375	1828×828×345	1423×837×455
	Net weight/Gross weight	kg	56/65	43/50	59/66	57/69
Loading quantity	Dimension (W×D×H)	Outline	mm	1040×1040×65	—	1040×1040×65
	Package	mm	—	1137×1137×140	—	1137×1137×140
Net weight/Gross weight	kg	—	—	6.0/12	—	8.0/12
					—	—
Sound pressure level		dB(A)	69	—	—	63
	Dimension (W×D×H)	Outline	mm	958×412×1349	—	1086×427×1365
Net weight/Gross weight	Package	mm	—	1043×453×1500	—	1143×478×1505
	kg	—	—	114/124	—	126/138
Outer diameter	Liquid	inch/mm	φ3/8(9.52)	—	—	φ3/8(9.52)
	Gas	inch/mm	φ5/8(15.9)	—	—	φ3/4(19.05)
Max distance	Height/Length	m	—	30/50	—	30/50
	Load quantity	40GP/40HQ	—	38/48	43/50	43/47
Net weight/Gross weight		kg	—	—	38/48	39/42

## Control System Lineup

Controlling system	Product series	High efficiency series		
		Duct type	Cassette type	Floor ceiling type
Wireless remote controller	YB1FA			
	YV1FB7F			
	YV1FB7			
	YB1FAF			
	YAM1F			
	YAM1FF			
	Z4K351J			
	Z4K351CJ			

Note:

● means standard, ○ means optional.

# U-Match

## Fixed Frequency Series

It is a kind of split system that the outdoor unit can be freely connected to different types of indoor units according to various indoor decoration requirements.



Intelligent defrosting



Compact design



Anti-cold function



Comprehensive protection



Easier maintainability



Self diagnosis



Wide operation range

R410A

## Indoor Units Lineup

Capacity Index (BTU/h)	9K	12K	18K	24K	
Outdoor Unit					
Indoor Unit	Duct	GUHN09NK3AO	GUHN12NK3AO	GUHN16NK3AO	GUHN24NK3AO
	Cassette	GFH09K3BI	GFH12K3BI	GFH16K3BI	GFH24K3BI
	Floor Ceiling	GKH12K3BI	GKH16K3BI	GKH24K3BI	GTH09K3BI
		GTH12K3BI	GTH16K3BI	GTH24K3BI	

- Double ambient temperature sensor design makes a precision temperature monitoring.
- With low ambient temperature cooling function, cooling normally in -7°C.
- The outdoor unit is universal, can be matched with floor ceiling, cassette, duct type indoor unit.



## Indoor Unit

Duct type	Cassette type	Floor ceiling type
<ul style="list-style-type: none"> <li>Fresh air inlet and air valve control function improve the indoor air quality.</li> <li>Flexible air in/outlet and condensing water outlet direction according to different installation requirements.</li> <li>Optimized air duct design improves the performance and lower the noise.</li> </ul>	<ul style="list-style-type: none"> <li>Drain pump fitted as standard with increased lift of 1100mm.</li> <li>Special low noise fan design.</li> <li>Different swing angle design for cooling and heating mode for better comfort.</li> <li>All kinds of air freshener can be installed in the filter, such as catechin</li> </ul>	<ul style="list-style-type: none"> <li>3-D air flue design.</li> <li>Easy replacement of motor and fan blade thanks to clamp block propeller design.</li> <li>Different swing angle design for cooling and heating mode for better comfort.</li> </ul>

Item	Nominal operating condition (temperature)			Operation range (temperature)		
	Outdoor condition		Indoor condition	Outdoor condition		Indoor condition
	DB (°C)	WB (°C)	DB (°C)	WB (°C)	DB (°C)	WB (°C)
Cooling	35	24	27	19	-7~43 (with low ambient cooling) 18~43 (without low ambient cooling)	
Heating	7	6	20	15	-7~24	

Capacity Index (BTU/h)	30K	36K	42K	48K	60K	
Outdoor Unit	GUHN30NK3AO	GUHN36NK3AO GUHN36NM3AO	GUHN42NM3AO	GUHN48NM3AO	GUHN60NM3AO	
Indoor Unit	Duct	GFH30K3BI	GFH36K3BI	GFH42K3BI	GFH48K3BI	GFH60K3BI
	Cassette	GKH30K3BI	GKH36K3BI	GKH42K3BI	GKH48K3BI	GKH60K3BI
	Floor Ceiling	GTH30K3BI	GTH36K3BI	GTH42K3BI	GTH48K3BI	GTH60K3BI

Model	Outdoor unit		GUHN09NK3AO			GUHN12NK3AO			GUHN30NK3AO			GUHN36NK3AO		
	Indoor unit		Duct GFH09K3BI	Floor Ceiling GTH09K3BI	Duct GFH12K3BI	Cassette GKH12K3BI	Floor Ceiling GTH12K3BI	Duct GFH30K3BI	Cassette GKH30K3BI	Floor Ceiling GTH30K3BI	Duct GFH36K3BI	Cassette GKH36K3BI	Floor Ceiling GTH36K3BI	
Capacity	Cooling		W BTU/h	2600 8870	2600 11940	3500 11940	3500 11940							
	Heating		W BTU/h	2850 9720	2850 9720	3600 12280	3600 12280							
EER/COP		W/W	2.60/2.94	2.60/2.85	2.92/3.27	2.99/3.27	2.99/3.27							
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50							
Power input	Cooling	kW	1.00	1.00	1.20	1.17	1.17							
	Heating	kW	0.97	1.00	1.10	1.10	1.10							
Current input	Cooling	A	4.4	4.3	5.4	5.4	5.4							
	Heating	A	4.3	4.5	5.1	5.1	5.1							
Refrigerant charge volume		kg	1.1	1.1	1	1	1							
Indoor unit	Air flow volume(H/M/L)	m³/h CFM	550/470/400 324/277/235	550/470/380 324/277/224	600/540/490 353/317/268	550/490/420 324/268/247	550/470/380 324/277/224							
	ESP	Rated Range	Pa Pa	25 0-25	— 0-25	25 —	— —							
	Sound pressure level(H/M/L)	dB(A)	37/36/34	47/44/41	40/38/36	47/45/43	47/44/41							
	Dimension (W×D×H)	mm	913×680×220	836×695×238	913×680×220	600×600×230	630×695×238							
Panel	Net Weight /Gross Weight	kg	998×753×273	938×808×310	998×753×273	851×681×325	938×808×310							
	Dimension (W×D×H)	mm	24/29	25/32	25/30	20/27	26/33							
	Package	mm	—	—	—	670×730×102	—							
	Net weight/Gross weight	kg	—	—	—	2.5/3.5	—							
Outdoor unit	Sound pressure level	dB(A)	—	55	—	—	58							
	Dimension (W×D×H)	Outline	mm	620×320×540	620×320×540									
	Package	mm	873×363×605	873×363×605										
	Net weight /Gross weight	kg	32/37	32/37	32/37	32/37	32/37							
Connection pipe	Outer diameter	Liquid	Inch(mm)	φ1/4(6.35)	φ1/4(6.35)									
	Gas	inch(mm)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)									
	Max.distance	Height/Length	m	16/20	16/20	15/20	15/20	15/20						
	Loading quantity	40'GP/40'HQ	set	123/160	116/143	123/160	113/144	116/143						

Model	Outdoor unit		GUHN30NK3AO			GUHN36NK3AO			
	Indoor unit		Duct GFH30K3BI	Cassette GKH30K3BI	Floor Ceiling GTH30K3BI	Duct GFH36K3BI	Cassette GKH36K3BI	Floor Ceiling GTH36K3BI	
Capacity	Cooling		W BTU/h	6300 28320	6300 28320	6500 29000	9800 33440	10000 34120	10000 34120
	Heating		W BTU/h	9100 31050	8800 30020	9800 33440	11000 37530	11000 37530	11000 37530
EER/COP		W/W	2.77/3.03	2.86/2.79	2.83/3.44	2.45/3.14	2.78/3.33	2.78/3.33	2.78/3.33
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Power input	Cooling	kW	3.00	2.90	3.00	4.00	3.60	3.60	3.60
	Heating	kW	3.00	3.15	2.85	3.50	3.30	3.30	3.30
Current input	Cooling	A	13.5	13.1	13.6	22.0	20.0	20.0	20.0
	Heating	A	13.9	13.1	13.6	19.0	18.0	18.0	18.0
Refrigerant charge volume		kg	3.0	3.0	3.0	3.2	3.2	3.2	3.2
Indoor unit	Air flow volume(H/M/L)	m³/h CFM	1500/1300/1100 882/765/647	1400/1270/1170 824/747/689	1600/1450/1300 942/853/765	2000/1900/1800 1177/1118/1059	1660/1570/1500 977/924/883	1800/1630/1520 1059/959/894	1800/1630/1520 1059/959/894
	ESP	Rated Range	Pa Pa	37 0-100	— —	— 0-150	— —	— —	— —
	Sound pressure level(H/M/L)	dB(A)	47/44/42	51/49/48	52/51/49	50/48/46	53/51/48	54/51/48	54/51/48
	Dimension (W×D×H)	mm	1270×530×268	840×840×240	1420×700×245	1226×775×290	840×840×320	1590×695×238	1590×695×238
Panel	Net Weight /Gross Weight	kg	1348×597×283	963×963×325	1578×828×345	1338×837×305	963×963×409	1717×833×345	1717×833×345
	Dimension (W×D×H)	mm	—	—	—	—	—	—	—
	Package	mm	1025×1040×115	—	—	—	—	—	—
	Net weight/Gross weight	kg	6.5/10	—	—	—	—	6.5/10	—
Outdoor unit	Sound pressure level	dB(A)	—	59	—	—	60	—	—
	Dimension (W×D×H)	Outline	mm	980×427×790	—	—	1018×412×840	—	—
	Package	mm	1083×488×855	—	—	—	1103×453×1000	—	—
	Net weight /Gross weight	kg	70/75	—	—	—	80/100	—	—
Connection pipe	Outer diameter	Liquid	Inch(mm)	φ3/8(9.52)	φ1/2(12.7)	—	—	—	—
	Gas	inch(mm)	φ5/8(15.9)	φ3/4(19.05)	φ3/4(19.05)	—	—	—	—
	Max.distance	Height/Length	m	15/30	—	—	30/50	—	—
	Loading quantity	40'GP/40'HQ	set	74/85	58/84	72/84	84/70	44/53	55/58

Model	Outdoor unit		GUHN18NK3AO			GUHN24NK3AO			GUHN36NM3AO			GUHN42NM3AO		
	Indoor unit		Duct GFH18K3BI</th											

## U-Macth(Fixed Frequency Series)

Model	Outdoor unit		GUHN48NM3A10			GUHN60NM3A20		
	Indoor unit		Duct GKH48K3B1I	Cassette GKH48K3B1I	Floor Ceiling GTH48K3B1I	Duct GTH60K3B2I	Floor Ceiling GTH60K3B2I	Cassette GKH60K3B2I
Capacity	Cooling	W	13200	13200	13200	15500	15500	15500
		BTU/h	45040	45040	45040	52800	52800	52800
Heating		W	14500	14500	14500	18500	18500	18000
		BTU/h	49470	49470	49470	63120	63120	61410
EER/COP		W/W	2.59/3.15	2.75/2.79	2.64/3.02	2.50/3.49	2.58/3.49	2.50/3.48
Power supply		Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	5.10	4.80	5.0	6.20	6.00	6.00
	Heating	kW	4.60	5.20	4.8	5.30	5.30	5.30
Current input	Cooling	A	9.2	8.7	9.0	11.3	10.9	10.8
	Heating	A	8.3	9.5	8.7	9.6	9.6	10.3
Refrigerant charge volume		kg	3.8	3.8	3.8	5	4.5	4.5
Indoor unit	Air flow volume(H/M/L)	m <sup>3</sup> /h	2300/2110/1850	1660/1570/1500	2100/1900/1800	2500/2070/1730	2300/2100/1900	2400/2100/1900
	ESP	Rated Pa	50	—	—	50	—	—
Panel	Range	Pa	0-150	—	—	0-50	—	—
	Sound pressure level(H/M/L)	dB(A)	53/50/46	53/51/48	58/55/52	53/50/48	58/55/52	55/53/49
Outdoor unit	Dimension (W×D×H)	mm	1226×775×290	840×840×320	1590×695×238	1226×815×330	1700×700×245	910×910×290
	Outline Package	mm	1338×837×305	963×963×409	1717×833×345	1338×885×345	1825×825×330	1020×990×360
Connection pipe	Net Weight /Gross Weight	kg	57/67	32/43	48/58	66/76	65/73	43/53
	Dimension (W×D×H)	Outline	mm	—	950×950×60	—	—	1040×1040×65
Max.distance	Outline Package	mm	—	1028×1043×130	—	—	—	1137×1137×140
	Net weight/Gross weight	kg	—	6.5/10	—	—	—	8/12
Sound pressure level		dB(A)				63		64
Outer diameter	Outline	mm	1032×412×1250			1032×412×1250		
	Gas	inch(mm)	—	1113×453×1400		1113×453×1400		
Max.distance	Height/Length	m	—	30/50		—	30/50	
	Max.distance	m	40'GP/40'HQ	set	45/49	42/48	44/49	45/49
Loading quantity						45/49	45/49	45/49

## Control System Lineup

Product series	U-Match		
	Fixed frequency series		
Controlling system	Duct type	4-Way Cassette type	Floor ceiling type
Wireless remote controller			
Wired controller			
	Smart zone controller		
	Other modules		

Note:

● means standard, ○ means optional.

\* If Long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-00/E2 shall be selected also. The quantity of the module shall be confirmed according to the quantity of outdoor units.

# Duct Split Unit

## High Capacity Series

It is a kind of split system that can be connected with air duct to realize cooling/heating in subdivided area.



- Dual temperature sensor.
- Anticorrosion heat exchanger, easy cleaning and less performance decline after years operation.
- Optimized air flue design greatly improves the fan efficiency and largely lowers the operation noise.
- Five directions pipe connection connector to meet various installation environments (top discharge ODU only).
- Flexible air inlet/outlet direction and condensing water outlet direction, meet various installation environments.

Item	Nominal operating condition (temperature)			Operating range (temperature)	
	Outdoor condition		Indoor condition	Outdoor condition	
	DB (°C)	WB (°C)	DB (°C)	WB (°C)	DB (°C)
Cooling	35	24	27	19	-15~43
Heating	7	6	20	15	-7~24

Model	Heat pump	FGR20/BNs-M	FGR25/CNs-M	FGR30/BNs-M	FGR40/BNs-M
Capacity	Cooling	kW	20	24.5	30
		BTU/h	68200	83597	102364
	Heating	kW	22	27.5	33
		BTU/h	75067	93834	112601
EER/COP	WW	2.38/3.14	2.5/3.06	2.4/3.14	2.50/3.00
	Power supply	Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	8.4	9.8	12.1
	Heating	kW	7.0	9.0	10.5
Current input	Cooling	A	15.3	22.2	23.4
	Heating	A	13.2	21.2	22.8
Refrigerant charge volume	kg	5.3	6.7	9.5	12
	Air flow volume	CFM m³/h	2354 4000	2825 4800	3237 5600
Indoor unit	ESP	Rated Range	Pa 100-300	Pa 30-250	Pa 50-250
	Sound pressure level	dB (A)	56	54	57
Outdoor unit	Dimension (W*D*H)	mm	1463*799*389	1500*1000*500	1500*1000*500
	Package	mm	1546*886*485	1640*1230*688	1640*1230*688
Connection pipe	Net weight/Gross weight	kg	86/109	150/200	156/206
	Sound pressure level	dB (A)	65	66	67
	Dimension (W*D*H)	mm	1150*360*1350	1150*360*1600	990*680*1772
	Package	mm	1320*505*1490	1320*505*1745	1165*983*1965
Loading quantity	Net weight/Gross weight	kg	158/174	185/200	227/248
	Outer diameter	Liquid Gas	inch(mm) φ3/8(9.52) φ3/4(19.05)	inch(mm) φ3/8(9.52) φ1(25.4)	inch(mm) φ1/2(12.7) φ9/8(28.6)
	Max. distance	Height Length	m	m	m
			30	30	30
			50	50	50
			17	13	13
	20GP	set	36/36	28/38	16/16
	40GP/40HQ	set			

## Control System Lineup

Controlling system	Product series		High capacity series
	Wireless remote controller	YB1F2	
Wired controller	Z4E351A		●
Long-distance monitoring software	Gree AC Eudemon 200B*	FE30-00/A(M)	○
BMS accessories	Communication module (modbus)	ME30-00/E2	○
Centralized controller	Smart zone controller	CE50-24/E	○
Other modules	Optoelectronic isolated converter	R5232-R5422485	○
	Optoelectronic isolated signal multiplier	RS-422485	○

Note:

\* means standard, ○ means optional.

\* If Long-distance monitoring software Gree Eude mon 2009 is selected, the communication module ME30-00/E2 shall be selected also. The quantity of the module shall be confirm according to the quantity of outdoor units.

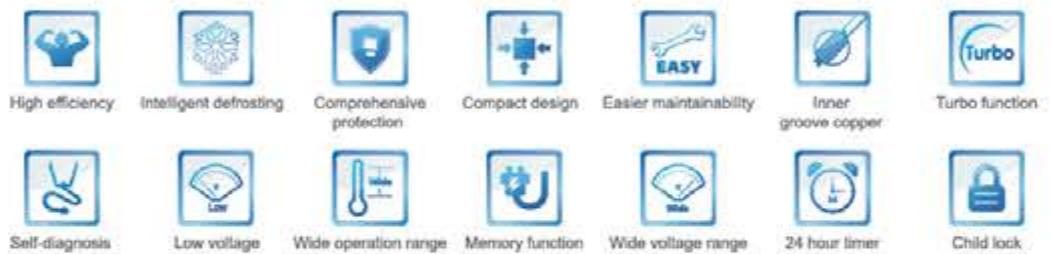
# MULTI-VRF

**Free Match 4 & 4+  
Super Free-Match  
All DC Inverter VRF (GMV5)  
Inverter Series (GMV IV)  
HOME GMV  
GMV5 HR  
GMV HR-II  
Fresh Air Series  
Energy Recovery Ventilation(ERV)  
Control System Lineup**



# Free Match 4 & 4+

Capacity range from 18 to 42Btu/h can be widely used in residential house, hotel, business office and especially applicable in variable loading situation.



- Operate finely when cooling at -15°C.
- Different units for choices, the same comfortable feeling for you.
- Lower power consumption; Lower noise, more comfort; Precise temperature control.
- Free Match 4 has no 0.5W standby function, while it has electric heating belt; Free Match 4+ has 0.5W standby function, while it hasn't electric heating belt.

## Outdoor Unit (Free match 4&4+)

Model	Heat Pump	GWHD(14)NK3DO	GWHD(18)NK3KO	GWHD(21)NK3KO	GWHD(24)NK3KO	GWHD(28)NK3KO	GWHD(36)NK3BO	GWHD(42)NK3AO
Capacity	Cooling BTU/h	14000	18000	21000	24000	28000	35820	41285
	Heating BTU/h	14000	18000	21000	24000	28000	37532	44400
SEER	WW	6.1	6.1	6.1	6.1	5.5	5.5	
Power supply	Ph/V/Hz				1Ph.220~240V.50Hz			
Power Input	Cooling kW	1.2	1.55	1.91	2.18	2.54	3.5	3.59
	Heating kW	1.10	1.42	1.65	1.89	2.20	3.75	3.54
Refrigerant charge volume	kg	1.4	1.4	2.2	2.2	2.4	4.3	4.8
Air flow volume	m³/h	2600	3200	3200	4000	4000	5200	5500
Sound pressure level	dB(A)	55	56	56	58	58	57	54
Dimension (WxDxH)	Outline mm	890X596X378	955X396X700	955X396X700	980X427X790	1015X440X1103	1015X440X1103	
	Package mm	948X420X645	1029X458X750	1029X458X750	1083X488X855	1083X488X855	1158X493X1235	1158X493X1235
Net weight/Gross weight	kg	43/47	50/55	51/56	68/73	88/74	94/104	102/112
Connecting pipe diameter	Gas inch(mm)	3/8(ø9.52)	3/8(ø9.52)	3/8(ø9.52)	3/8(ø9.52)	3/8(ø9.52)	1/2(ø12.7)	
	Liquid inch(mm)	1/4 (ø6)	1/4 (ø6)	1/4 (ø6)	1/4 (ø6)	1/4 (ø6)	1/4 (ø6)	
Max. equivalent connection pipe length	m	20	20	60	70	70	80	
Maximum drive IDU NO.	unit	5	5	5	5	5	5	
Loading quantity	40'GP/40'HQ	-	204/272	171/171	171/171	96/144	98/96	48/96

Item	Nominal operating condition(temperature)			Operation range(temperature)		
	Outdoor condition		Indoor condition	Outdoor condition (Free match 4)		Outdoor condition (Free match 4+)
	DB(°C)	WB(°C)	DB(°C)	WB(°C)	DB(°C)	DB(°C)
Cooling	35	24	27	19	-15~43	18~43
Heating	7	6	20	15	-20~24	-15~24

## Combinations of Outdoor Unit

### 8 Combinations

GWHD(14)NK3DO	One unit		Two units	
	7	7+7	7+9	
	9	7+12	9+9	
	12	9+12	-	

### 10 Combinations

GWHD(18)NK3KO	One unit		Two units	
	7	7+7	7+9	
	9	7+12	9+9	
	12	9+9	9+12	
	-	12+12	-	

### 18 Combinations

GWHD(21)NK3KO	Two units		Three units	
	7+7	7+9	7+7+7	7+7+9
	7+12	7+18	7+7+12	7+9+9
	9+9	9+12	7+9+12	7+12+12
	9+18	12+12	7+9+18	9+9+12
	12+18	18+18	18+18	12+12+12

### 23 Combinations

GWHD(24)NK3KO	Two units		Three units	
	7+7	7+9	7+7+7	7+7+9
	7+12	7+18	7+7+12	7+9+12
	9+9	9+12	7+9+9	7+9+12
	9+18	12+12	7+9+18	7+12+12
	12+18	18+18	18+18	9+9+18
	-	-	9+9+12	9+9+12
	-	-	9+12+12	9+12+12
	-	-	12+12+12	-

### 40 Combinations

GWHD(28)NK3KO	Two units		Three units		Four units	
	7+7	7+9	7+7+7	7+7+9	7+7+7+7	7+7+9+9
	7+12	7+18	7+7+12	7+7+18	7+7+7+12	7+7+9+18
	9+9	9+12	7+9+9	7+9+12	7+7+9+9	7+9+12+12
	9+18	12+12	7+9+18	7+9+18	7+7+9+18	7+9+12+21
	12+18	18+18	7+12+18	7+12+18	7+7+12+18	9+9+18+18
	-	-	9+9+21	9+9+21	7+9+12+21	9+9+18+18
	12+18	-	7+9+24	9+9+24	12+12+18	7+9+12+21
	12+21	-	7+12+12	9+12+12	12+18+21	7+9+18+18
	12+24	-	7+12+18	9+12+18	18+18+18	7+12+12+12

### 97 Combinations

GWHD(36)NK3BO	Two units		Three units		Four units	
	7+12	18+18	7+7+7	9+12+21	7+7+7+7	7+12+12+21

## Indoor Unit Lineup

Capacity index(Btu/h)	7000	9000	12000	18000	21000	24000
Wall Mounted Type	Hansol	●	●	●	●	●
	Viola	●	●	●	●	●
	Lomo	●	●	●	●	●
	Cozy	●	●	●	●	●
	change	●	●	●	●	●
Duct type		●	●	●	●	
Cassette type		●	●	●	●	
Floor ceiling type		●	●	●		

## Viola (Free match 4&amp;4+)

Model	GWH07RB-K3DNA5GII	GWH09RB-K3DNA5GII	GWH12RB-K3DNA5GII	GWH18RC-K3DNA5GII	GWH24RD-K3DNA5GII
Capacity	Cooling BTU/h Heating BTU/h	7200 8880	8880 10240	11900 13850	18000 19790
Power supply	Ph/V/Hz			1Ph,220-240V,50Hz	
Airflow volume	m³/h CFM	580 341	600 353	600 353	850 500
Sound pressure level(H/M/L/SL)	dB(A)	41/39/34/26	41/39/34/26	42/40/35/30	45/43/37/33
Connecting pipe	Gas inch(mm) Liquid inch(mm)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	1/2(φ12) 1/4(φ6)
Dimension (W×H×D)	Outline mm Package mm	848x189x274 926x267x371	848x189x274 926x267x371	848x189x274 926x267x371	945x208x298 1013x383x300
Net weight/Gross weight	kg	9.0/11.0	9.0/11.0	9.0/12.0	12.0/15.0
Loading quantity	20'GP 40'GP/40HQ	set set	306 636/742	306 636/742	252 541/609

## Wall-mounted Type Indoor Unit

## Hansol (Free match 4&amp;4+)

Model	GWH07TB-S3DNA1DII	GWH09TB-S3DNA1DII	GWH12TB-S3DNA1DII	GWH18TC-S3DNA1DII	GWH24TD-S3DNA1DII
Capacity	Cooling BTU/h Heating BTU/h	7200 8880	8530 10920	11950 13850	18080 18430
Power supply	Ph/V/Hz		1Ph,220-240V,50Hz		
Airflow volume	m³/h CFM	600 353	650 383	750 441	950 559
Sound pressure level(SH/H/M/H/M/ML/L/SL)	dB(A)	38/36/32/30	43/36/34/32	43/36/34/32	46/44/42/40
Connecting pipe	Gas inch(mm) Liquid inch(mm)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	1/2(φ12) 1/4(φ6)	5/8(φ16) 1/4(φ6)
Dimension (W×H×D)	Outline mm Package mm	808x209x292 888x297x377	808x209x292 888x297x377	1018x230x319 945x297x377	1178x326x264 1097x340x397
Net weight/Gross weight	kg	10/13.0	11.0/13.0	11.0/13.0	14.0/17.0
Loading quantity	20'GP 40'GP/40HQ	set set	266 553/632	266 553/632	252 518/692
				174 366/427	132 276/322

## Change (Free match 4&amp;4+)

Model	GWH07KF-K3DNA8GII	GWH09KF-K3DNA8GII	GWH12KF-K3DNA8GII	GWH18KG-K3DNA8GII	GWH24KG-K3DNA8GII
Capacity	Cooling BTU/h Heating BTU/h	7200 8880	8880 9550	11940 12970	18000 19000
Power supply	Ph/V/Hz			1Ph,220-240V,50Hz	
Airflow volume	m³/h CFM	550 324	600 388	680 421	800 471
Sound pressure level(H/M/L/SL)	dB(A)	40/38/30/24	41/38/30/24	42/39/31/25	45/40/37/32
Connecting pipe	Gas inch(mm) Liquid inch(mm)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	1/2(φ12) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)
Dimension (W×H×D)	Outline mm Package mm	770x283x201 847x345x276	770x283x201 847x345x276	770x283x201 847x345x276	865x305x215 948x383x310
Net weight/Gross weight	kg	8.0/8.5	328	8.0/10.5	12.0/15.0
Loading quantity	20'GP 40'GP/40HQ	set set	328 688/774	328 688/774	264 542/616

## Lomo (Free match 4&amp;4+)

Model	GWH07QB-K3DNA1GII	GWH09QB-K3DNA1GII	GWH12QC-K3DNA1GII	GWH18QD-K3DNA1GII	GWH24QE-K3DNA1GII
Capacity	Cooling BTU/h Heating BTU/h	7165 8871	8880 9550	11900 12500	17500 18000
Power supply	Ph/V/Hz		1Ph,220-240V,50Hz		
Airflow volume	m³/h CFM	550 324	560 330	680 388	1150 677
Sound pressure level(H/M/L/SL)	dB(A)	38/36/32/26	55/52/44/38	57/53/45/42	46/42/39/36
Connecting pipe	Gas inch(mm) Liquid inch(mm)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	1/2(φ12) 1/4(φ6)
Dimension (W×H×D)	Outline mm Package mm	790x200x257 866x271x367	790x200x257 866x271x367	845x209x289 921x281x379	970x300x224 1041x383x320
Net weight/Gross weight	kg	9/11	9/11	10.0/12.0	13.5/16.5
Loading quantity	20'GP 40'GP/40HQ	set set	334 692/804	294 600/674	229 479/545
				168 336/392	

## Cozy (Free match 4&amp;4+)

Model	GWH07MB-K3DNE3GII	GWH09MB-K3DNE3GII	GWH12MB-K3DNE3GII	GWH18MC-K3DNE3GII	GWH24MD-K3DNE3GII
Capacity	Cooling BTU/h Heating BTU/h	7200 8880	8900 10240	11940 13650	18000 19800
Power supply	Ph/V/Hz		1Ph,220-240V,50Hz		
Airflow volume	m³/h CFM	580 341	600 353	650 353	1000 588
Sound pressure level(H/M/L/SL)	dB(A)	41/39/34/28	42/39/34/28	42/40/35/30	45/43/37/33
Connecting pipe	Gas inch(mm) Liquid inch(mm)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	3/8(φ9.52) 1/4(φ6)	1/2(φ12) 1/4(φ6)
Dimension (W×H×D)	Outline mm Package mm	790x170x265 873x251x370	790x170x265 873x251x370	845x180x275 916x250x370	940x200x295 1013x383x300
Net weight/Gross weight	kg	9.0/12.0	9.0/12.0	9.0/12.0	12.0/15.0
Loading quantity	20'GP 40'GP/40HQ	set set	348 732/852	336 732/852	254 541/609
				210 434/496	

### Floor Ceiling Type Indoor Unit (Free match 4)

Model		GTH(09)BA-K3DNA1A/I	GTH(12)BA-K3DNA1A/I	GTH(18)BA-K3DNA1A/I	GTH(24)BA-K3DNA1A/I	
Capacity	Cooling Heating	BTU/h BTU/h	8530 9553	11942 13136	17060 18766	24225.2 27296
Power supply		Ph/V/Hz		1Ph,220-240V,50Hz		
Airflow volume		m³/h	650	650	950	1250
		CFM	383	383	559	736
Sound pressure level(H/L)		dB(A)	40/36	40/36	45/40	48/44
Connecting pipe	Gas	inch(mm)	3/8(ø9.52)	3/8(ø9.52)	1/2(ø12.7)	5/8(ø15.88)
	Liquid	inch(mm)	1/4 (ø6.35)	1/4 (ø6.35)	1/4 (ø6.35)	3/8(ø9.52)
Dimension (W×H×D)	Outline	mm	1220×700×225	1220×700×225	1220×700×225	1220×700×225
	Package	mm	1340×820×300	1343×823×315	1340×820×300	1340×820×300
Net weight/Gross weight		kg	40/50	40/50	40/50	45/54
Loading quantity	20'GP 40'GP/40'HQ	-	66 132/132	66 132/132	66 132/132	66 132/132

### Cassette Type Indoor Unit (Free match 4)

Model		GKH(12)BA-K3DNA2A/I	GKH(18)BA-K3DNA2A/I	GKH(24)BA-K3DNA1A/I		
Capacity	Cooling Heating	BTU/h BTU/h	11942 13648	15354 17060	24225 27296	
Power supply		Ph/V/Hz		1Ph,220-240V,50Hz		
Airflow volume		m³/h	680	600	1180	
		CFM	400	353	694	
Sound pressure level(H/M/L)		dB(A)	37/35/33	46/44/42	39/37/35	
Connecting pipe	Gas	inch(mm)	3/8(ø9.52)	1/2(ø12.7)	5/8(ø15.9)	
	Liquid	inch(mm)	1/4 (ø6.35)	1/4 (ø6.35)	3/8(ø9.52)	
Main body Panel	Dimention (W×H×D)	Outline Package	mm mm	840x840x190 963x963x273	570x570x230 848x728x310	840x840x240 963x963x325
	Net weight/Gross weight		kg	25/33	18/23	28/35
Panel	Dimention (W×H×D)	Outline Package	mm mm	950x950x60 1043x1028x115	650x650x60 733x673x117	950x950x60 1043x1028x130
	Net Weight/Gross weight		kg	6.5/10	2.5/3.5	6.5/10
Loading quantity	20'GP 40'GP/40'HQ	-	48 128/144	- 209/246	40 108/128	

### Duct Type Indoor Unit (Free match 4)

Model		GFH(09)EA-K3DNA1A/I	GFH(12)EA-K3DNA1A/I	GFH(18)EA-K3DNA1A/I	GFH(21)EA-K3DNA1A/I	GFH(24)EA-K3DNA1A/I	
Capacity	Cooling Heating	BTU/h BTU/h	8530 9550	11940 13140	17060 18770	20470 22520	24230 27300
Power supply		Ph/V/Hz		1Ph,220-240V,50Hz			
Airflow volume		m³/h	450	550	700	1000	1000
		CFM	264.825	324	411.95	588.5	588.5
Sound pressure level(H/L)		dB(A)	37/31	39/32	41/33	42/34	42/34
Connecting pipe	Gas	inch(mm)	3/8(ø9.52)	3/8(ø9.52)	1/2(ø12.7)	5/8(ø15.88)	5/8(ø15.88)
	Liquid	inch(mm)	1/4 (ø6.35)	1/4 (ø6.35)	1/4 (ø6.35)	3/8(ø9.52)	3/8(ø9.52)
Dimension (W×H×D)	Outline	mm	700×615×200	700×615×200	900×615×200	1100×615×200	1100×615×200
	Package	mm	890×740×290	893×740×290	1120×740×290	1320×740×290	1320×740×290
Net weight/Gross weight		kg	22/27	23/29	27/36	31/41	31/41
Loading quantity	20'GP 40'GP/40'HQ	-	108 234/234	108 234/234	90 180/180	72 162/162	72 162/162

### Control System Lineup

Controlling system	Product series	Wall mounted type						Duct type	Cassette type	Floor ceiling type
		Hansol	U-cool	Viola	Lomo	Cozy	Change			
Wireless remote controller	YAA1FB1									
	YAG1FB									
	YT1F(XFAN)									
	YB1F2 (XFAN)									
	YN1F1(XFAN)									
	YAG1FB									
Wired controller	YT1F(MOTO)									
	XK19									
Centralized controller	CE50-24/E									

Note: ● means standard, ○ means optional.

# Super Free-match

Capacity range from 12kw to 16kw can be widely used in residential house, hotel, business office and especially applicable in variable loading situation.



FXA\*\*

FXB\*\*



- Power supply startup delay design, lower the unit starting current.

- High efficiency thanks to DC inverter compressor.

- The lowest noise thanks to advanced technology.

- The system could run stably under hard operation conditions.

- Connection pipe up to 145 meter length that convenient on installation.

Item	Nominal operating condition(temperature)				Operation range(temperature)	
	Outdoor condition		Indoor condition			
	DB(°C)	WB(°C)	DB(°C)	WB(°C)		
Cooling	35	24	27	19	18~48 (with low ambient cooling); -15~48 (without low ambient cooling)	
Heating	7	6	20	15	-20~24 (with low ambient cooling); -10~24 (without low ambient cooling)	

## Indoor Units Lineup

Capacity Index(BTU/h)		7000	9000	12000	18000	21000	24000
Wall mounted type	U-Cool		●	●	●	●	
	Hansol		●	●	●	●	
	Cozy		●	●	●	●	
	Change		●	●	●	●	
	Viola		●	●	●	●	●
Duct type			●	●	●	●	●
Cassette type				●	●	●	●
Floor ceiling type				●	●	●	●
Console type				●	●	●	

## 163 Combinations

GWHD(42S)NK3CO (2 to 6)	Two units	Three units	Four units	Five units	Six units
	7+18	7+7+7	7+18+24	9+21+24	7+7+7+7
	7+21	7+7+9	7+21+21	12+12+12	7+7+7+9+21
	7+24	7+7+12	7+21+24	12+12+16	7+7+7+12+12
	9+12	7+7+18	7+24+24	12+12+21	7+7+7+18+18
	9+18	7+7+21	9+9+9	12+12+24	7+7+7+21+21
	9+21	7+7+24	9+9+12	12+16+18	7+7+7+24+24
	9+24	7+9+9	9+9+16	12+18+21	7+7+9+9+9
	12+12	7+9+12	9+9+21	12+18+24	7+9+9+12+12
	12+16	7+9+18	9+9+24	12+21+21	7+9+9+18+18
	12+21	7+9+21	9+12+12	-	7+7+9+9+9
	12+24	7+9+24	9+12+18	-	7+7+9+9+12+12
	18+18	7+12+12	9+12+21	12+18+24	7+9+9+12+18
	18+21	7+12+15	9+12+24	-	7+7+9+12+15+12
	18+24	7+12+21	9+18+18	-	7+7+12+12+12
	21+21	7+12+24	9+18+21	-	7+9+9+9+9
	21+24	7+18+18	9+18+24	-	7+9+9+9+12
	24+24	7+18+21	9+21+21	-	9+9+9+9+18

## 288 Combinations

GWHD(48S)NK3CO (2 to 6) GWHD(48S)NM3CO (2 to 8)	Two units	Three units	Four units	
	7+18	7+7+12	9+9+9	12+18+18
	7+21	7+7+18	9+9+12	12+18+21
	7+24	7+7+21	9+9+18	12+18+24
	9+18	7+7+24	9+9+21	12+21+21
	9+21	7+9+9	9+9+24	12+21+24
	9+24	7+9+12	9+12+12	12+24+24
	12+12	7+9+18	9+12+18	18+18+18
	12+18	7+9+21	9+12+21	18+18+21
	12+21	7+9+24	9+12+24	18+18+24
	12+24	7+12+12	9+18+18	18+21+21
	18+18	7+12+18	9+18+21	18+21+24
	18+21	7+12+21	9+18+24	21+21+21
	18+24	7+12+24	9+21+21	21+21+24
	21+21	7+18+18	9+21+24	-
	21+24	7+18+21	9+24+24	-
	24+24	7+18+24	12+12+12	-
	-	7+21+21	12+12+18	-
	-	7+21+24	12+12+21	-
	-	7+24+24	12+12+24	-
	-	7+24+21	12+12+18	-
	-	7+24+18	12+12+18	-
	-	7+21+21	7+12+18	-
	-	7+12+21	7+12+18	-
	-	7+12+18	7+12+18	-

288 Combinations

	Five units	Six units	Seven units	Eight units
7+7+7+7+7	7+7+9+9+12	7+9+9+9+24	9+9+9+12+12	7+7+7+7+7+7
7+7+7+7+9	7+7+9+9+18	7+9+9+12+12	9+9+9+12+18	7+7+7+7+7+9
7+7+7+7+12	7+7+9+9+21	7+9+9+12+18	9+9+9+12+21	7+7+7+7+7+12
7+7+7+7+15	7+7+9+9+24	7+9+9+12+21	9+9+9+12+24	7+7+7+7+7+15
7+7+7+7+21	7+7+9+12+12	7+9+9+12+24	9+9+9+18+18	7+7+7+7+7+21
7+7+7+7+24	7+7+9+12+18	7+9+9+18+18	9+9+12+12+12	7+7+7+7+7+24
7+7+7+9+9	7+7+9+12+21	7+9+9+18+21	9+9+12+12+12	7+7+7+7+9+9
7+7+7+9+12	7+7+9+12+24	7+9+12+12+12	9+9+12+12+18	7+7+7+7+9+18
7+7+7+9+18	7+7+9+18+18	7+9+12+12+18	9+9+12+12+21	7+7+7+7+9+18
7+7+7+9+21	7+7+9+18+21	7+9+12+12+21	9+12+12+12+12	7+7+7+7+9+21
7+7+7+9+24	7+7+12+12+12	7+9+12+12+24	9+12+12+12+18	7+7+7+7+9+18
7+7+7+12+12	7+7+12+12+18	7+12+12+12+12	12+12+12+12+12	7+7+7+7+12+12
7+7+7+12+18	7+7+12+12+21	7+12+12+12+18	-	7+7+7+7+12+18
GWHD(48S)NM3CO (2 to 8)	7+7+7+12+21	7+7+12+12+24	7+12+12+12+21	-
GWHD(48S)NM3CO (2 to 8)	7+7+7+12+24	7+7+12+15+18	9+9+9+9+9	-
	7+7+7+18+18	7+9+9+9+9	9+9+9+9+12	-
	7+7+7+18+21	7+9+9+9+12	9+9+9+9+18	-
	7+7+7+18+24	7+9+9+9+18	9+9+9+9+21	-
	7+7+9+9+9	7+9+9+9+21	9+9+9+9+24	-



448 Combinations

	Two units		Three units				Four units					
GWHD(56S)NK300 (2 to 9)	7+18	7+7+18	7+21+24	9+24+24	18+21+24	7+7+7+7	7+7+12+24	7+9+12+24	7+12+21+24	9+9+12+21	9+12+21+21	12+12+18+24
GWHD(56S)NM300 (2 to 9)	7+21	7+7+21	7+24+24	12+12+12	18+24+24	7+7+7+9	7+7+18+18	7+9+18+18	7+18+18+18	9+9+12+24	9+12+21+24	12+12+21+21
	7+24	7+7+24	9+9+12	12+12+18	21+21+21	7+7+7+12	7+7+18+21	7+9+18+21	7+18+18+21	9+9+18+18	9+12+24+24	12+12+21+24
	9+18	7+9+12	9+9+18	12+12+21	21+21+24	7+7+7+18	7+7+18+24	7+9+18+24	7+18+18+24	9+9+18+21	9+18+18+18	12+12+24+24
	9+21	7+9+18	9+9+21	12+12+24	21+24+24	7+7+7+21	7+7+21+21	7+9+21+21	7+18+21+21	9+9+18+24	9+18+18+21	12+18+18+18
	9+24	7+9+21	9+9+24	12+18+18	24+24+24	7+7+7+24	7+7+21+24	7+9+21+24	7+18+21+24	9+9+21+21	9+18+18+24	12+18+18+21
	12+18	7+9+24	9+12+12	12+18+21	-	7+7+9+9	7+7+24+24	7+9+24+24	7+18+24+24	9+9+21+24	9+18+21+21	12+18+18+24
	12+21	7+12+12	9+12+18	12+18+24	-	7+7+9+9	7+9+9+9	7+12+12+12	7+21+21+21	9+9+24+24	9+18+21+24	12+18+21+21
	12+24	7+12+18	9+12+21	12+21+21	-	7+7+9+12	7+9+9+12	7+12+12+18	9+9+9+9	9+12+12+12	9+21+21+21	18+18+18+18
	18+18	7+12+21	9+12+24	12+21+24	-	7+7+9+18	7+9+9+18	7+12+12+21	9+9+9+12	9+12+12+16	12+12+12+12	-
	18+21	7+12+24	9+18+18	12+24+24	-	7+7+9+21	7+9+9+21	7+12+12+24	9+9+9+18	9+12+12+21	12+12+12+18	-
	18+24	7+18+18	9+18+21	18+18+18	-	7+7+9+24	7+9+9+24	7+12+18+18	9+9+9+21	9+12+12+24	12+12+12+21	-
	21+21	7+18+21	9+18+24	18+18+21	-	7+7+12+12	7+9+12+12	7+12+18+21	9+9+9+24	9+12+18+18	12+12+12+24	-
	21+24	7+18+24	9+21+21	18+18+24	-	7+7+12+18	7+9+12+18	7+12+18+24	9+9+12+12	9+12+18+21	12+12+18+18	-
	24+24	7+21+21	9+21+26	18+21+21	-	7+7+12+21	7+9+12+21	7+12+21+21	9+9+12+18	9+12+18+24	12+12+18+21	-



		Five units						Six units			
7+7+7+7+7	7+7+9+9+9	7+7+12+21+21	7+9+12+12+24	9+9+9+18+18	12+12+12+12+18	7+7+7+7+7+7	7+7+7+9+12+12	7+7+9+9+12+18			
7+7+7+7+9	7+7+9+9+12	7+7+12+21+24	7+9+12+18+18	9+9+9+18+21	12+12+12+12+21	7+7+7+7+7+9	7+7+7+9+12+12	7+7+9+9+12+21			
7+7+7+7+12	7+7+9+9+18	7+7+18+18+18	7+9+12+18+21	9+9+9+18+24	12+12+12+12+24	7+7+7+7+7+12	7+7+7+9+12+18	7+7+9+9+12+24			
7+7+7+7+18	7+7+9+9+21	7+7+18+18+21	7+9+12+18+24	9+9+9+21+21	12+12+12+18+18	7+7+7+7+7+18	7+7+7+9+12+21	7+7+9+9+18+18			
7+7+7+7+21	7+7+9+9+24	7+9+9+9+9	7+9+12+21+21	9+9+9+21+24	-	7+7+7+7+7+21	7+7+7+9+12+24	7+7+9+9+15+21			
7+7+7+7+24	7+7+9+12+21	7+9+9+9+12	7+9+18+18+18	9+9+12+12+12	-	7+7+7+7+7+24	7+7+9+9+18+18	7+7+9+12+12+12			
7+7+7+9+9	7+7+9+12+18	7+9+9+9+18	7+12+12+12+12	9+9+12+12+18	-	7+7+7+7+9+9	7+7+9+9+18+21	7+7+9+12+12+18			
7+7+7+9+12	7+7+9+12+21	7+9+9+9+21	7+12+12+12+18	9+9+12+12+21	-	7+7+7+7+9+12	7+7+9+9+18+24	7+7+9+12+12+21			
7+7+7+9+18	7+7+9+12+24	7+9+9+9+24	7+12+12+12+21	9+9+12+12+24	-	7+7+7+7+9+18	7+7+9+9+21+21	7+7+9+12+12+24			
7+7+7+9+21	7+7+9+18+18	7+9+9+12+12	7+12+12+12+24	9+9+12+18+18	-	7+7+7+7+9+21	7+7+7+12+12+12	7+7+9+12+18+18			
7+7+7+9+24	7+7+9+18+21	7+9+9+18+21	7+12+12+18+18	9+9+12+18+21	-	7+7+7+7+9+24	7+7+7+12+12+18	7+9+9+9+9+9			
7+7+7+12+12	7+7+9+18+24	7+9+9+12+21	7+12+12+18+21	9+9+12+18+24	-	7+7+7+7+12+12	7+7+7+12+12+21	7+9+9+9+9+12			
7+7+7+12+18	7+7+9+21+24	7+9+9+12+24	9+9+9+9+9	9+9+12+21+21	-	7+7+7+7+12+18	7+7+7+12+12+24	7+9+9+9+9+18			
GWHD(565)NACCO (2 to 9)	7+7+7+12+21	7+7+9+24+24	7+9+9+18+18	9+9+9+9+12	-	7+7+7+7+12+21	7+7+7+12+18+18	7+9+9+9+9+21			
GWHD(565)NMCCO (2 to 9)	7+7+7+12+24	7+7+12+12+12	7+9+9+18+21	9+9+9+9+18	9+12+12+12+12	-	7+7+7+7+12+24	7+7+7+12+18+21	7+9+9+9+9+24		
	7+7+7+18+18	7+7+12+12+18	7+9+9+18+24	9+9+9+9+21	9+12+12+12+18	-	7+7+7+7+18+18	7+7+9+9+9+8	7+9+9+9+12+12		
	7+7+7+18+21	7+7+12+12+21	7+9+9+21+21	9+9+9+9+24	9+12+12+12+21	-	7+7+7+9+9+9	7+7+9+9+9+12	7+9+9+9+12+18		
	7+7+7+18+24	7+7+12+12+24	7+9+9+21+24	9+9+9+12+12	9+12+12+12+24	-	7+7+7+9+9+12	7+7+9+9+9+18	7+9+9+9+12+21		
	7+7+7+21+21	7+7+12+18+18	7+9+12+12+12	9+9+9+12+18	9+12+12+18+18	-	7+7+7+9+9+18	7+7+9+9+9+21	7+9+9+9+12+24		
	7+7+7+21+24	7+7+12+18+21	7+9+12+12+18	9+9+9+12+21	9+12+12+18+21	-	7+7+7+9+9+21	7+7+9+9+9+24	7+9+9+9+18+18		
	7+7+7+24+24	7+7+12+18+24	7+9+12+12+21	9+9+9+12+24	12+12+12+12+12	-	7+7+7+9+9+24	7+7+9+9+12+12	7+9+9+12+12+12		



BU Module

Model		FXA2A-K	FXA2B-K	FXA3A-K	FXA3B-K	FXB3A-K	FXB5A-K
Fuse current	A	3.15	3.15	3.15	3.15	3.15	3.15
Power supply	Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50
Sound pressure level	dB(A)	28	28	28	28	30	30
Sound Power Level	dB(A)	38	38	38	38	40	40
Dimension(W×D×H)	Outline	532×313×182	532×313×182	532×313×182	532×313×182	617×410×193	617×410×193
	Package	mm	683×392×270	683×392×270	683×392×270	678×473×275	678×473×275
Connection Method	—	Flare	Braze	Flare	Braze	Flare	Flare
No. of IDU can connected	—	2	2	3	3	3	5
Type of ODU can connected	—			Single phase ODU			Three phase ODU
Net weight/Gross weight	kg	6.0/8.0	6.0/8.5	6.5/8.5	6.5/8.5	8/10	9/11
Connecting pipe diameter ( to IDU )	Gas	inch(mm)	φ3/8(9.52)	φ5/8(16.3)	φ3/8(9.52)	φ5/8(16.3)	φ3/8(9.52)
	Liquid	inch(mm)	φ1/4(6.35)	φ1/4(6.5)	φ1/4(6.35)	φ1/4(6.5)	φ1/4(6.35)
Connecting pipe diameter ( to ODU )	Gas	inch(mm)	φ5/8(15.9)	φ3/4(16.3)	φ5/8(15.9)	φ3/4(16.3)	φ5/8(15.9)
	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.7)	φ3/8(9.52)	φ3/8(9.7)	φ3/8(9.52)
Maximum connect IDU NO.	unit	2	2	3	3	3	5
Loading quantity	40'GP	set	294	294	294	246	246
	40'HQ	set	294	294	294	246	246
Max. Equivalent Connection Pipe Length (BU unit to Last Indoor)	m	15	15	15	15	15	15



Six units	Seven units	Eight units	Nine units
7+9+9+12+12+18	9+9+12+12+12+18	7+7+7+7+7+7+7	7+7+9+9+9+9+12
7+9+9+12+12+21	9+12+12+12+12+12	7+7+7+7+7+7+9	7+7+9+9+9+9+12
7+9+12+12+12+12	12+12+12+12+12+12	7+7+7+7+9+12+12	7+7+9+9+9+9+12
7+9+12+12+12+18	-	7+7+7+7+7+7+18	7+7+9+9+9+9+12
7+12+12+12+12+12	-	7+7+7+7+9+12+18	7+7+9+9+9+9+12
9+9+9+9+9+9	-	7+7+7+7+7+7+24	7+7+9+9+9+9+9
9+9+9+9+9+12	-	7+7+7+7+7+9+9	7+7+9+9+9+9+12
9+9+9+9+9+18	-	7+7+7+7+7+9+12	7+7+9+9+9+9+18
9+9+9+9+9+21	-	7+7+7+7+7+9+18	7+7+7+7+7+9+21
9+9+9+9+9+24	-	7+7+7+7+7+9+21	7+7+7+7+7+9+21
9+9+9+9+12+12	-	7+7+7+7+7+9+24	7+7+7+7+7+9+24
9+9+9+9+12+18	-	7+7+7+7+7+12+12	7+7+7+7+7+9+24
9+9+9+9+12+21	-	7+7+7+7+7+12+18	7+7+7+7+7+9+24
9+9+9+9+12+24	-	7+7+7+7+7+12+21	7+7+7+7+7+9+24
9+9+9+18+18	-	7+7+7+7+7+12+24	7+7+7+7+7+9+24
9+9+9+12+12+12	-	7+7+7+7+7+18+18	7+7+7+7+7+12+12
9+9+9+12+12+18	-	7+7+7+7+9+9+12	7+7+7+7+7+12+12
9+9+9+12+12+21	-	7+7+7+7+9+9+12	7+7+7+7+7+12+12
9+9+9+12+12+24	-	7+7+7+7+9+9+12	7+7+7+7+7+12+12
9+9+9+18+18	-	7+7+7+7+7+12+24	7+7+7+7+7+12+12
9+9+9+12+12+12	-	7+7+7+7+7+18+18	7+7+7+7+7+12+12
9+9+9+12+12+18	-	7+7+7+7+9+9+12	7+7+7+7+7+12+12
9+9+9+12+12+21	-	7+7+7+7+9+9+12	7+7+7+7+7+12+12
9+9+12+12+12+12	-	7+7+7+7+9+9+18	7+7+7+9+9+12+12

## Outdoor Unit

Model	Heat Pump		GWHD(425)NK3CO	GWHD(485)NK3CO	GWHD(485)NK3CO	GWHD(565)NK3CO	GWHD(565)NK3CO
Capacity	Cooling	BTU/h	41300	47800	47800	52900	54600
	Heating	BTU/h	42700	53000	54600	59700	61400
EER/GOP	Cooling	kW/kW	2.95/3.38	2.86/3.60	2.90/3.20	2.92/3.65	2.80/3.50
	Heating	kW/kW	3.00/3.38	3.10/3.60	3.05/3.20	3.08/3.65	3.00/3.50
Power supply	Phy/V/Hz		1/220-240/50	1/220-240/50	3/380-415/50	1/220-240/50	3/380-415/50
	Cooling	kW	4.10	4.90	4.40	5.30	5.00
Power input	Heating	kW	3.70	4.30	4.25	4.80	4.70
	Refrigerant charge volume		kg		4.95		
Air Pressure Level		m <sup>3</sup> /h	6400	6400	6600	7000	6600
Sound pressure level		dB(A)	55	55	58	58	58
Dimension(W×D×H)	Outline	mm	900×340×1345	900×340×1345	900×340×1345	900×340×1345	900×340×1345
	Package	mm	993×453×1500	993×453×1500	993×453×1500	993×453×1500	993×453×1500
Net weight/Gross weight		kg	116/128	116/128	116/123	116/128	116/123
Connecting pipe diameter	Gas	inch/mm	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ3/4(19.05)
	Liquid	inch/mm	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
Max. equivalent connection pipe length		m	70	70	70	70	70
Maximum drive IDU NO.		unit	6	8	8	9	9
Loading quantity	40/GP/40/HQ	set	50/50	50/50	50/50	50/50	50/50

## Wall Mounted Indoor Unit

### U-Cool

Model	GWH(07)UA-K3DNA1B/I		GWH(09)UA-K3DNA1B/I		GWH(12)UB-K3DNA1B/I		GWH(18)UC-K3DNA1B/I	
Capacity	Cooling	BTU/h	7167	8874	11946	18089		
	Heating	BTU/h	8874	9556	12969	19795		
Power supply		Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50		
Airflow volume		m³/h	450	450	560	850		
		CFM	265	265	329	500		
Sound pressure level (SH/H/MH/M/ML/SL)		dB(A)	37/35/32/30/28/26/24	38/34/32/29/27/25/22	39/36/34/31/29/27/23	44/40/37/35/33/31/28		
Connecting pipe	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)		
	Liquid	inch(mm)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)		
Dimension(WxHxD)	Outline	mm	860X153X299	860X153X299	896X159X320	998X178X340		
	Package	mm	944X247X386	944X247X386	973X255X403	1083X283X428		
Net weight/Gross weight	kg	9.5/12.5	9.5/12.5	11.5/14.5	15/19			
Loading quantity	20'GP	set	324	324	279	216		
	40' GP/40' HQ	set	666/740	666/740	585/650	440/495		

### Cozy

Model	GWH(07)MA-K3DNA3E/I		GWH(09)MA-K3DNA3E/I		GWH(12)MB-K3DNA3E/I		GWH(18)MC-K3DNA3E/I	
Capacity	Cooling	BTU/h	7167	8874	11946	18089		
	Heating	BTU/h	8874	9556	12969	19795		
Power supply		Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50		
Airflow volume		m³/h	450	500	630	850		
		CFM	265	294	371	500		
Sound pressure level (SH/H/M/L)		dB(A)	36/34/31/28	37/34/31/28	38/34/32/30	46/43/40/36		
Connecting pipe	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)		
	Liquid	inch(mm)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)		
Dimension(WxHxD)	Outline	mm	790X170X265	790X170X265	845X180X275	940X200X298		
	Package	mm	873X251X370	873X251X370	918X258X370	1013X288X395		
Net weight/Gross weight	kg	9/11	9/11	10/12.5	13/16			
Loading quantity	20'GP	set	348	348	336	254		
	40' GP/40' HQ	set	732/852	732/852	684/798	541/609		

### Change

Model	GWH(07)KF-K3DNA6E/I		GWH(09)KF-K3DNA6E/I		GWH(12)KF-K3DNA6E/I		GWH(18)KC-K3DNA6E/I	
Capacity	Cooling	BTU/h	7167	8874	11946	18089		
	Heating	BTU/h	8874	9556	12969	19795		
Power supply		Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50		
Airflow volume		m³/h	550	600	680	800		
		CFM	324	353	400	471		
Sound pressure level (SH/H/M/L)		dB(A)	40/38/30/24	41/38/30/24	42/38/31/25	45/40/37/32		
Connecting pipe	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)		
	Liquid	inch(mm)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)		
Dimension(WxHxD)	Outline	mm	700X201X283	770X201X283	770X201X283	865X215X305		
	Package	mm	847X264X357	847X264X357	847X264X357	948X298X395		
Net weight/Gross weight	kg	8/10	8/10	9/11	12/15			
Loading quantity	20'GP	set	336	336	336	254		
	40' GP/40' HQ	set	696/783	696/783	696/783	542/616		

### Hansol

Model	GWH(07)TA-K3DNA1E/I		GWH(09)TA-K3DNA1E/I		GWH(12)TB-K3DNA1E/I		GWH(18)TC-K3DNA1E/I	
Capacity	Cooling	BTU/h	7167	8533	11946	18089		
	Heating	BTU/h	8874	9388	12457	19113		
Power supply		Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50		
Airflow volume		m³/h	550	550	770	950		
		CFM	324	324	430	559		
Sound pressure level (SH/H/MH/M/ML/SL)		dB(A)	41/36/34/32/28/24/21	41/36/34/32/28/24/21	43/36/34/32/28/24/21	49/44/41/39/38/33/30		
Connecting pipe	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ5/8(15.9)		
	Liquid	inch(mm)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)		
Dimension(WxHxD)	Outline	mm	806X209X292	806X209X292	866X209X292	1018X230X319		
	Package	mm	888X297X377	888X297X377	945X297X377	1097X397X340		
Net weight/Gross weight	kg	10.5/13.0	10.5/13.0	11.0/13.5	15.0/18.5			
Loading quantity	20'GP	set	266	266	252	174		
	40' GP/40' HQ	set	553/632	553/632	518/592	366/427		

### Viola

Model	GWH(07)RA-K3DNA3E/I		GWH(09)RA-K3DNA3E/I		GWH(12)RB-K3DNA3E/I		GWH(18)RC-K3DNA3E/I		GWH(24)RC-K3DNA3E/I	
Capacity	Cooling	BTU/h	7167	8874	11946	18089				22014
	Heating	BTU/h	8874	9556	12969	19795				24232
Power supply		Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50	1/220~240/50				1/220~240/50
Airflow volume		m³/h	500	500	630	850				1000
		CFM	294	294	371	500				588
Sound pressure level (SH/H/M/L)		dB(A)	40/37/35/32	40/37/35/32	42/39/36/33	45/42/37/33				48/46/44/42
Connecting pipe	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ5/8(15.9)				φ5/8(15.9)
	Liquid	inch(mm)	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)	φ3/8(9.52)				φ3/8

## Console Type Indoor Unit

Model	GEH(9)AA-K3DNA1C1		GEH(12)AA-K3DNA1C1		GEH(18)AA-K3DNA1C1	
Capacity	Cooling BTU/h	8874	11946	18089		
	Heating BTU/h	9556	12969	19795		
Power supply	Ph/V/Hz	1/220~240/50	1/220~240/50	1/220~240/50		
Airflow volume	m³/h	650	750	840		
	CFM	382.3529412	441	494		
Sound pressure level (SH/H/MH/M/ML/L/SL)	dB(A)	40/38/36/33/30/27/25	42/40/38/37/35/32/25	48/46/44/41/37/35/32		
Connecting pipe	Gas inch/mm	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)		
	Liquid inch/mm	φ1/4(6.35)	φ1/4(6.35)	φ1/4(6.35)		
Dimension(WxHxD)	Outline mm	700X600X215	700X600X215	700X600X215		
	Package mm	791X710X286	791X710X286	791X710X286		
Net weight/Gross weight	kg	15/18	15/18	15/18		
Loading quantity	20'GP set	168	168	168		
	40' GP/40' HQ set	348/440	348/440	348/440		

## Control System Lineup

Product series		Wall mounted type					Duct type	Cassette type	Floor ceiling type	Console type
Controlling system		Hansol	U-Cool	Cozy	Change	Viola				
Wireless remote controller	YAA1FB1									
	YT1F(MOTO)									
	YAG1FB									
	YB1F2 (XFAN)									
Wired controller	XX19									
Centralized controller	CE50-24/E									

Note:  
 means standard, means optional.

## All DC Inverter VRF Air Conditioning System

Gree GMV5 All DC Inverter VRF adopts high-efficient DC inverter compressor and DC inverter fan motor. The unit can be combined modularly from 8HP to 88HP. Maximum capacity can up to 180kW.

GMV5 Mini



GMV5 Slim



GMV5



All DC inverter technology



Energy saving function



Quiet function



Human engineering operation



Intelligent Management



Long connection pipe design



Wide operation range



Modular operating\*



High ESP



Comprehensive protection

- Outdoor unit quiet mode.
- Oil balance between compressors.
- High energy efficiency with high-performance compressor; Long connection pipe design with the maximum length of 1000m.
- Auto switch of module status in every 8hrs, which greatly improves the reliability of complete unit.
- 4 levels of static pressure for option with the maximum of 82Pa.

Max. piping length (meter)	GMV5 Mini	GMV5 Slim	GMV5
Total piping length	300m	300m	100m
Actual piping length	120m	100m	165m
Equivalent piping length	150m	120m	190m
Height difference between indoor units	15m	10m	30m
Height difference between ODU and IDU (ODU is located above the IDU)	50m	50m	90m
Height difference between ODU and IDU (IDU is located above the ODU)	40m	40m	90m
Piping length from first indoor branch to the farthest IDU	40m	40m	40m

Item	Nominal operating condition (temperature)				Operating range (temperature)					
	Outdoor condition		Indoor condition		Outdoor condition: DB(°C)		GMV5 Mini	GMV5 Slim	GMV5	
Cooling	DB(°C)	WB(°C)	DB(°C)	WB(°C)	DB(°C)	WB(°C)	GMV5 Mini	GMV5 Slim	GMV5	
Heating	35	-	27	19	-5~48	-5~50	-5~52	-20~27	-20~27	-20~24
	7	6	20	-						

## Outdoor Units Lineup

GMV5 Mini

HP	Model	Product Outlook
4	GMV-120WL/A-T	
5	GMV-140WL/A-T	
6	GMV-160WL/A-T	

## Specifications of Outdoor Units

GMV5 Mini 50/60 Hz

Model	GMV-120WL/A-T <sup>*</sup>	GMV-140WL/A-T <sup>*</sup>	GMV-160WL/A-T <sup>*</sup>
Capacity range	HP	4	5
Cooling	kW	12.1	14
Heating	kW	14	18.5
EER	W/W	3.97	3.52
COP	W/W	4.28	4.14
Power supply	V/Ph/Hz	220~240V-1Ph-50Hz&208~230V-1Ph-60Hz	
Max. Circuit/Fuse Current	A	28.1/32	31.8/32
Power consumption	Cooling	3.05	3.98
	Heating	3.27	4.67
Maximum drive IDU NO.	unit	7	8
Refrigerant Charge volume	kg	5	5
Sound pressure level	dB(A)	55	56
Connecting pipe	Liquid	mm	Φ9.52
	Gas	mm	Φ15.87
Dimension (W*D*H)	Outline	mm	900*340*1345
	Package	mm	998*458*1515
Net weight/Gross weight	kg	110/120	110/120
Loading quantity	40' GP	set	57
	40' HQ	set	57

\*1 This series outdoor unit cannot match with US air handler, fresh air processing unit and high static ESP duct type unit.

GMV5 Slim 50/60 Hz

Model	GMV-H200WL/A-X <sup>*</sup>	GMV-H224WL/A-X <sup>*</sup>	GMV-H250WL/A-X <sup>*</sup>	GMV-H280WL/A-X <sup>*</sup>	GMV-H308WL/A-X <sup>*</sup>	GMV-H335WL/A-X <sup>*</sup>
Capacity range	HP	7	8	9	10	11
Cooling	kW	20.0	22.4	24.5	28.0	30.8
Heating	kW	22.4	25.0	26.0	31.5	33.5
EER	W/W	3.1	3.1	3.1	2.97	2.99
COP	W/W	4.0	4.1	3.7	3.66	3.53
IPLV	Cooling	kW/kW	6.1	6.1	6.0	6.0
Power supply	V/Ph/Hz	380-415-3Ph-50/60Hz				
Max. Circuit/Fuse Current	A	25	25	25	25	25
Power consumption	Cooling	kW	6.5	7.2	8.0	9.4
	Heating	kW	5.6	6.1	7.0	8.6
Maximum drive IDU NO.	unit	12	13	15	17	18
Refrigerant Charge volume	kg	5.5	5.5	6.0	7.5	8.0
Sound pressure level	Cooling	dB(A)	57	58	59	59
	Heating	dB(A)	58	59	60	60
Connecting pipe	Liquid	mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
	Gas	mm	Φ19.05	Φ19.05	Φ19.05	Φ12.7
Dimension (W*D*H)	Outline	mm	940*320*1430	940*320*1430	940*320*1430	940*460*1615
	Package	mm	1033*433*1580	1033*433*1580	1033*433*1580	1033*573*1765
Net weight/Gross weight	kg	133/144	133/144	133/144	160/175	165/180
Loading quantity	40' GP	set	54	54	44	44
	40' HQ	set	54	54	44	44

## Note:

- ① Testing conditions of rated cooling capacity: indoor 27°CDB/19°CWB, outdoor 35°CDB, connection pipe length of 5m, no height difference between units.
- ② Testing conditions of rated heating capacity: indoor 20°CDB, outdoor 7°CDB/6°CWB, connection pipe length of 5m, no height difference between units.
- ③ The total indoor unit capacity shall be within 50% to 130% of outdoor unit capacity. Correction of other parameters can be referred to the unit capacity correction sheet.
- ④ The above-mentioned parameters are tested with standard connection pipe length. In actual engineering, please arrange correction according to the capacity correction with long connection pipe.

\*2 This product is under development. The parameters are estimated, please refer to the value on the nameplate.

GMV5 50/60 Hz

Model	GMV-324WM/B-X	GMV-280WM/B-X	GMV-335WM/B-X	GMV-400WM/B-X	GMV-450WM/B-X	GMV-504WM/B-X <sup>*</sup>	GMV-560WM/B-X <sup>*</sup>	GMV-615WM/B-X <sup>*</sup>
Capacity range	HP	8	10	12	14	16	18	20
Cooling	kW	22.4	28	33.5	40	45	50.4	56
Heating	kW	25	31.5	37.5	45	50	56	63
EER	W/W	4.31	4	3.98	3.76	3.56	3.38	2.97
COP	W/W	4.55	4.32	4.17	4.05	3.85	3.84	3.16
Power supply	V/Ph/Hz	380-415V-3Ph-50/60Hz						
Max. Circuit/Fuse Current	A	15.7/20	20.9/25	24.7/32	28.8/40	33.2/40	36.8/40	43.8/50
Power consumption	Cooling	kW	5.2	7	8.41	10.65	12.85	14.9
	Heating	kW	5.5	7.3	9	11.1	13	17.5
Maximum drive IDU NO.	unit	13	16	19	23	26	31	38
Refrigerant Charge volume	kg	5.9	6.7	8.2	9.8	10.3	12.7	13.5
Sound pressure level	dB(A)	60	61	63	63	63	65	66
Connecting pipe	Liquid	mm	Φ9.52			Φ12.7		Φ15.9
	Gas	mm	Φ19.05	Φ22.2		Φ25.4	Φ26.6	Φ28.6
Oil balance	mm				Φ9.52			Φ9.52
Dimension (W*D*H)	Outline	mm	930*765*1605			1340*765*1605		1340*765*1740
	Package	mm	1010*840*1775			1420*840*1775		1420*840*1910
Net weight/Gross weight	kg	225/235	225/235	285/300	360/375	360/375	400/415	400/415
Loading quantity	40' GP	set	24	24	16	16	16	16
	40' HQ	set	57	57	57	57	57	57

## Note:

\*1 This product is under development. The parameters are estimated, please refer to the value on the nameplate.

## ODU Combination Lineup-GMV5

MODEL	GMV-224WM/B-X (8HP)	GMV-280WM/B-X (10HP)	GMV-335WM/B-X (12HP)	GMV-400WM/B-X (14HP)	GMV-450WM/B-X (16HP)
	GMV-224WM/B-X (8HP)				
	GMV-280WM/B-X (10HP)				
	GMV-335WM/B-X (12HP)				
	GMV-400WM/B-X (14HP)				
	GMV-450WM/B-X (16HP)				
	GMV-504WM/B-X (18HP)				
	GMV-560WM/B-X (20HP)				
	GMV-615WM/B-X (22HP)				
	GMV-680WM/B-X (24HP)				
	GMV-730WM/B-X (26HP)				
	GMV-785WM/B-X (28HP)				
	GMV-850WM/B-X (30HP)				
	GMV-900WM/B-X (32HP)				
	GMV-960WM/B-X (34HP)				
	GMV-1010WM/B-X (36HP)				
	GMV-1065WM/B-X (38HP)				
	GMV-1130WM/B-X (40HP)				
	GMV-1180WM/B-X (42HP)				
	GMV-1235WM/B-X (44HP)				
	GMV-1300WM/B-X (46HP)				
	GMV-1350WM/B-X (48HP)				
	GMV-1410WM/B-X (50HP)				
	GMV-1460WM/B-X (52HP)				
	GMV-1515WM/B-X (54HP)				
	GMV-1580WM/B-X (56HP)				
	GMV-1630WM/B-X (58HP)				
	GMV-1685WM/B-X (60HP)				
	GMV-1750WM/B-X (62HP)				
	GMV-1800WM/B-X (64HP)				

## Specifications of ODU Combination

50/60 Hz

Model	Cooling Capacity		Power Input		Dimension(W*D*H) mm	Airflow Volume m³/h	ESP Noise		Noise of Night Overall Noise		Connecting pipe diameter 20° bend Liquid Gas		Weight kg	
	kW Cooling	kW Heating	kW Cooling	kW Heating			Pa dB(A)	dB(A)	mm	mm	A	A		
GMV-504WM/B-X	50.4	56.5	12.2	12.8	2×(930×765×1605)	2×11400	0-82	64	45	Φ15.9	Φ28.6	Φ9.52	36.6	40
GMV-560WM/B-X	56	62.5	14	14.6	2×(930×765×1605)	2×11400	0-82	64	45	Φ15.9	Φ28.6	Φ9.52	41.8	50
GMV-615WM/B-X	61.5	69	15.41	16.3	(930×765×1605)+(1340×765×1605)	11400+14000	0-82	65	45	Φ15.9	Φ28.6	Φ9.52	49.7	50
GMV-680WM/B-X	68	76.5	17.65	18.4	(930×765×1605)+(1340×765×1605)	11400+14000	0-82	65	45	Φ15.9	Φ28.6	Φ9.52	54.1	63
GMV-730WM/B-X	73	81.5	19.65	20.3	(930×765×1605)+(1340×765×1605)	11400+14000	0-82	65	45	Φ19.05	Φ31.8	Φ9.52	57.9	63
GMV-785WM/B-X	78.5	87.5	21.06	22	2×(1340×765×1605)	2×14000	0-82	66	45	Φ19.05	Φ31.8	Φ9.52	66.1	80
GMV-850WM/B-X	85	95	23.3	24.1	2×(1340×765×1605)	2×14000	0-82	66	45	Φ19.05	Φ31.8	Φ9.52	66.4	80
GMV-900WM/B-X	90	100	25.3	26	2×(1340×765×1605)	2×14000	0-82	66	45	Φ19.05	Φ31.8	Φ9.52	66.5	80
GMV-960WM/B-X	96	108	24.65	25.7	2×(930×765×1605)+(1340×765×1605)	2×11400+14000	0-82	67	45	Φ19.05	Φ31.8	Φ9.52	70.8	80
380~ 415V- 50/60Hz	101	113	26.65	27.6	2×(930×765×1605)+(1340×765×1605)	2×11400+14000	0-82	67	45	Φ19.05	Φ38.1	Φ9.52	75	80
	GMV-1065WM/B-X	106.5	119	28.06	29.3	(930×765×1605)+2×(1340×765×1605)	11400+2×14000	0-82	67	45	Φ19.05	Φ38.1	Φ9.52	78.8
GMV-1130WM/B-X	113	126.5	30.3	31.4	(930×765×1605)+2×(1340×765×1605)	11400+2×14000	0-82	67	45	Φ19.05	Φ38.1	Φ9.52	82.9	100
GMV-1180WM/B-X	118	131.5	32.3	33	(930×765×1605)+2×(1340×765×1605)	11400+2×14000	0-82	67	45	Φ19.05	Φ38.1	Φ9.52	87.3	100
GMV-1235WM/B-X	123.5	137.5	33.71	35	3×(1340×765×1605)	3×14000	0-82	68	45	Φ19.05	Φ38.1	Φ9.52	91.1	125
GMV-1300WM/B-X	130	145	35.95	37.1	3×(1340×765×1605)	3×14000	0-82	68	45	Φ19.05	Φ38.1	Φ9.52	95.2	125
GMV-1350WM/B-X	135	150	37.95	39	3×(1340×765×1605)	3×14000	0-82	68	45	Φ19.05	Φ38.1	Φ9.52	99.6	125
GMV-1410WM/B-X	141	158	37.3	38.7	2×(930×765×1605)+2×(1340×765×1605)	2×11400+2×14000	0-82	69	47	Φ22.2	Φ44.5	Φ9.52	103.8	125
GMV-1460WM/B-X	146	163	39.3	40.6	2×(930×765×1605)+2×(1340×765×1605)	2×11400+2×14000	0-82	69	47	Φ22.2	Φ44.5	Φ9.52	108.2	125
GMV-1515WM/B-X	151.5	169	40.71	42.3	(930×765×1605)+3×(1340×765×1605)	11400+3×14000	0-82	69	47	Φ22.2	Φ44.5	Φ9.52	112	125
GMV-1580WM/B-X	158	176.5	42.95	44.4	(930×765×1605)+3×(1340×765×1605)	11400+3×14000	0-82	69	47	Φ22.2	Φ44.5	Φ9.52	116.1	125
GMV-1630WM/B-X	163	181.5	44.95	46.3	(930×765×1605)+3×(1340×765×1605)	11400+3×14000	0-82	69	49	Φ22.2	Φ44.5	Φ9.52	120.5	160
GMV-1685WM/B-X	168.5	187.5	46.36	48	4×(1340×765×1605)	4×14000	0-82	70	49	Φ22.2	Φ44.5	Φ9.52	124.3	160
GMV-1750WM/B-X	175	195	48.6	50.1	4×(1340×765×1605)	4×14000	0-82	70	49	Φ22.2	Φ44.5	Φ9.52	128.4	160
GMV-1800WM/B-X	180	200	50.6	52	4×(1340×765×1605)	4×14000	0-82	70	49	Φ22.2	Φ44.5	Φ9.52	132.8	160

## Specifications of Indoor Units

Type of Indoor unit	Specification	22	25	28	32	36	40	45	50	56	63	71	72	80	90	100	112	125	140	160	224	280	450
High Static Pressure Duct Type Unit										●	●	●	●	●	●	●	●	●	●	●	●	●	
Low Static Pressure Duct Type Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Slim Ducted Type Indoor Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
4-way Cassette Unit					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Compact 4-way Cassette Indoor Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
2-way Cassette Indoor Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
1-way Cassette Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Wall-mounted Type Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Floor Ceiling Type Indoor Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Console Indoor Unit		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Floor Standing Type Indoor Unit										●	●	●	●	●	●	●	●	●	●	●	●	●	
Fresh Air Processing Indoor Unit										●	●	●	●	●	●	●	●	●	●	●	●	●	

## Duct Type Indoor Unit

## High ESP Series



## Low ESP Series



Washable filter



Easier maintainability



High ESP



Auto addressing technology



Slave and master wired controller



Centralized control



Quality motor

## High Static Pressure Duct Type Indoor Unit

50/60 Hz

Capacity	Model		GMV-ND56PHS/A-T	GMV-ND63PHS/A-T	GMV-ND71PHS/A-T	GMV-ND80PHS/A-T	GMV-ND90PHS/A-T
	Cooling	Heating	kW	5.6	6.3	7.1	8.0
Power supply	V/Ph/Hz			6.3	7.1	8.0	9.0
Power consumption	W		120	120	130	130	200
Airflow volume(H/M/L)	m³/h	1000/800/600	1000/800/600	1100/900/700	1100/900/700	1100/900/700	1700/1450/1100
	CFM	590/471/355	590/471/355	650/530/410	650/530/410	650/530/410	1000/853/650
Rated Current <sup>2</sup>	Cooling	A	0.6	0.6	0.6	0.6	1.0
	Heating	A	0.6	0.6	0.6	0.6	1.0
	Water Heating	A	/	/	/	/	/
ESP	Pa				70/0~100		
Sound pressure level(H/M/L)	dB(A)	44/40/36	44/40/36	45/41/37	45/41/37	46/41/37	46/44/42
Connecting pipe diameter	Liquid	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia.	mm	Φ25	Φ25	Φ25	Φ25	Φ25
	Thickness	mm	2.5	2.5	2.5	2.5	2.5
Dimension	Outline	mm			1271x558x268		
	Package	mm			1348x597x305		
Net weight/Gross weight	kg	35/40	35/40	35/40	35/40	35/40	47/54
Loading	40' GP	set	192	192	192	192	128
	40' HQ	set	216	216	216	216	128

Capacity	Model		GMV-ND100PHS/A-T	GMV-ND112PHS/A-T	GMV-ND125PHS/A-T	GMV-ND140PHS/A-T	GMV-ND160PHS/A-T	GMV-ND224PH/A-T	GMV-ND280PH/A-T	
	Cooling	Heating	kW	10.0	11.2	12.5	14.0	16.0	22.4	28.0
Power supply	V/Ph/Hz		220-240/1/50 & 208-230/1/60					220-240/1/50/60	220-240/1/50 & 208-230/1/60	
Power consumption	W	200	200	220	220	220	220	560	800	900
Airflow volume(H/M/L)	m³/h	1700/1450/1100	1700/1450/1100	2000/1550/1200	2000/1700/1400	3100	4000	4400		
	CFM	1000/853/650	1000/853/650	1175/912/706	1175/1000/824	1824	2355	2590		
Rated Current <sup>2</sup>	Cooling	A	1.0	1.0	1.0	1.0	1.0	4	4.1	4.8
	Heating	A	1.0	1.0	1.0	1.0	1.0	4	4.1	4.6
	Water Heating	A	/	/	/	/	/	/	/	/
ESP	Pa				70/0~100			50	150/50~200	150/50~200
Sound pressure level(H/M/L)	dB(A)	46/44/42	46/44/42	48/45/42	48/46/44	55.0	54.0	55.0		
Connecting pipe diameter	Liquid	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ19.05	Φ22.2
Drain pipe	External dia.	mm	Φ25	Φ25	Φ25	Φ25	Φ25	Φ30	Φ30	Φ30
	Thickness	mm	2.5	2.5	2.5	2.5	2.5	1.5	1.5	1.5
Dimension	Outline	mm			1229x775x290			1497x799x389	1483x791x385	1888x870x450
	Package	mm			1338x877x305			1578x883x400	1758x883x470	1788x988x580
Net weight/Gross weight	kg	47/54	47/54	47/54	47/54	79/103	82/104	105/140		
Loading	40' GP	set	128	128	128	128	75	65	52	
	40' HQ	set	128	128	128	128	75	65	52	

## Low Static Pressure Duct Type Indoor Unit

50/60 Hz

Model	GMV-ND22PLS/A-T	GMV-ND25PLS/A-T	GMV-ND28PLS/A-T	GMV-ND32PLS/A-T	GMV-ND36PLS/A-T
Capacity	Cooling kW	2.2	2.5	2.8	3.2
	Heating kW	2.5	2.8	3.6	4.0
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60	
Power consumption	W	35	35	35	43
Airflow volume(H/M/L)	m³/h	450/350/250	450/350/250	450/350/250	550/450/350
	CFM	265/206/147	265/206/147	265/206/147	325/265/206
Rated Current <sup>2</sup>	Cooling A	0.2	0.2	0.2	0.2
	Heating A	0.2	0.2	0.2	0.2
	Water Heating A	/	/	/	/
ESP	Pa		15/0~30		
Sound pressure level(H/M/L)	dB(A)	31/28/25	31/28/25	31/28/25	32/30/27
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
Drain pipe	External dia. mm	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm		700 x 615 x 200		
	Package mm		893x743x305		
Net weight/Gross weight	kg	22/27	22/27	22/27	22/28
Loading	40' GP set	192	192	192	192
	40' HQ set	192	192	192	192

## Slim Ducted Type Indoor Unit

50/60 Hz

Model	GMV-ND22PL/B-T*	GMV-ND25PL/B-T*	GMV-ND28PL/B-T*	GMV-ND32PL/B-T*	GMV-ND36PL/B-T*
Capacity	Cooling kW	2.2	2.5	2.8	3.2
	Heating kW	2.5	2.8	3.6	4.0
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60	
Power consumption	W	25	25	25	30
Airflow volume(H/M/L)	m³/h	450/400/320	450/400/320	450/400/320	550/450/340
	CFM	265/235/188	265/235/188	265/235/188	324/265/200
Rated Current <sup>2</sup>	Cooling A	0.2	0.2	0.2	0.3
	Heating A	0.2	0.2	0.2	0.3
	Water Heating A	/	/	/	/
ESP	Pa		0/15		
Sound pressure level(H/M/L)	dB(A)	30/28/22	30/28/22	30/28/22	31/29/25
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
Drain pipe	External dia. mm	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm			710x450x200	
	Package mm			1003x551x285	
Net weight/Gross weight	kg	18.5/22	18.5/22	18.5/22	19.5/23
Loading	40' GP set	352	352	352	352
	40' HQ set	352	352	352	352

Model	GMV-ND40PLS/A-T	GMV-ND45PLS/A-T	GMV-ND50PLS/A-T	GMV-ND56PLS/A-T	GMV-ND63PLS/A-T
Capacity	Cooling kW	4.0	4.5	5.0	5.6
	Heating kW	4.5	5.0	5.6	6.3
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60	
Power consumption	W	52	52	52	99
Airflow volume(H/M/L)	m³/h	700/600/450	700/600/450	700/600/450	1000/800/600
	CFM	410/355/265	410/355/265	410/355/265	590/471/355
Rated Current <sup>2</sup>	Cooling A	0.3	0.3	0.3	0.5
	Heating A	0.3	0.3	0.3	0.5
	Water Heating A	/	/	/	/
ESP	Pa		15/0~30		
Sound pressure level(H/M/L)	dB(A)	33/31/28	33/31/28	33/31/28	35/33/30
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ9.52
	Gas mm	Φ12.7	Φ12.7	Φ12.7	Φ15.9
Drain pipe	External dia. mm	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm		900 x 615 x 200		1100 x 615 x 200
	Package mm		1123x743x305		1323x743x305
Net weight/Gross weight	kg	27/33	27/33	27/33	31/38
Loading	40' GP set	192	192	192	162
	40' HQ set	192	192	192	162

Model	GMV-ND40PL/B-T*	GMV-ND45PL/B-T*	GMV-ND50PL/B-T*	GMV-ND56PL/B-T*	GMV-ND63PL/B-T*	GMV-ND72PL/B-T*
Capacity	Cooling kW	4.0	4.5	5.0	5.6	6.3
	Heating kW	4.5	5.0	5.6	6.3	7.0
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60		
Power consumption	W	35	35	35	45	50
Airflow volume(H/M/L)	m³/h	750/660/540	750/660/540	750/660/540	850/700/610	1100/800/640
	CFM	441/388/318	441/388/318	441/388/318	500/412/359	647/471/377
Rated Current <sup>2</sup>	Cooling A	0.3	0.3	0.3	0.3	0.5
	Heating A	0.3	0.3	0.3	0.3	0.5
	Water Heating A	/	/	/	/	/
ESP	Pa		0/15			
Sound pressure level(H/M/L)	dB(A)	33/30/27	33/30/27	33/30/27	35/33/29	37/34/30
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52
	Gas mm	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9
Drain pipe	External dia. mm	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm			1010x450x200		1310x450x200
	Package mm			1303x551x285		1603x551x285
Net weight/Gross weight	kg	23.5/28	23.5/28	23.5/28	24.5/29	30.5/36
Loading	40' GP set	288	288	288	288	224
	40' HQ set	288	288	288	288	224

Note:

\* This series is without water pump.

Model	GMV-ND71PLS/A-T	GMV-ND10PLS/A-T	GMV-ND16PLS/A-T	GMV-ND100PLS/A-T	GMV-ND112PLS/A-T	GMV-ND125PLS/A-T	GMV-ND140PLS/A-T
Capacity	Cooling kW	7.1	8.0	9.0	10.0	11.2	12.5
	Heating kW	8.0	9.0	10.0	11.2	12.5	14.0
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60			
Power consumption	W	105	140	209	209	230	230
Airflow volume(H/M/L)	m³/h	1000/800/600	1100/1000/800	1500/1250/950	1500/1350/1000	1700/1500/1100	2000/1500/1150
	CFM	590/471/355	650/590/471	885/736/599	885/736/599	1000/885/650	1175/885/677
Rated Current <sup>2</sup>	Cooling A	0.5	0.7	1.0	1.0	1.1	1.1
	Heating A	0.5	0.7	1.0	1.0	1.1	1.1
	Water Heating A	/	/	/	/	/	/
ESP	Pa		30/0~50				
Sound pressure level(H/M/L)	dB(A)	35/33/30	36/34/31	40/36/32	40/36/32	42/40/3	

## Cassette Type Indoor Unit

The cooling capacity of the cassette type units ranges from 2.2~16.0 kW, which can be widely applied in hotels, office buildings, apartments and villas, etc.



- Built-in drain pump
- Washable filter
- Quiet function
- Easier maintainability
- Auto addressing technology
- Quality motor
- Slave and master wired controller
- Centralized control
- Horizontal swing

### 4-way Cassette Indoor Unit

50/60 Hz

Model		GMV-ND28T/A-T	GMV-ND36T/A-T	GMV-ND45T/A-T	GMV-ND50T/A-T	GMV-ND56T/A-T	GMV-ND63T/A-T	GMV-ND71T/A-T
Capacity	Cooling kW	2.8	3.6	4.5	5.0	5.6	6.3	7.1
	Heating kW	3.2	4.0	5.0	5.6	6.3	7.1	8.0
Power supply	V/Ph/Hz				220~240/1/50 & 208~230/1/60			
Power consumption	W	48	48	48	50	59	59	68
Airflow volume(H/M/L)	m³/h	750/650/550	750/650/550	750/650/550	830/650/550	1000/900/750	1000/900/750	1180/950/850
	CFM	440/383/325	440/383/325	440/383/325	480/383/325	590/530/440	590/530/440	695/559/550
Rated Current <sup>2</sup>	Cooling A	0.2	0.2	0.2	0.2	0.3	0.3	0.3
	Heating A	0.2	0.2	0.2	0.2	0.3	0.3	0.3
	Water Heating A	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	36/34/31	36/34/31	36/34/31	36/34/31	37/35/32	37/35/32	38/36/33
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52
	Gas mm	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia. mm	25	25	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Main Body	Dimension (WxDxH) Outline	840x840x190	840x840x190	840x840x190	840x840x190	840x840x240	840x840x240	840x840x240
	Package	963x963x272	963x963x272	963x963x272	963x963x272	963x963x325	963x963x325	963x963x325
	Net weight/Gross weight kg	22.5/29.5	22.5/29.5	22.5/29.5	22.5/29.5	26.5/34.5	26.5/34.5	26.5/34.5
Panel	Dimension (WxDxH) Outline	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65
	Package	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133
	Net weight/Gross weight kg	7/11	7/11	7/11	7/11	7/11	7/11	7/11
Loading quantity	40GP set	167	167	167	167	140	140	140
	40HQ set	171	171	171	171	156	156	156

Model		GMV-ND80T/A-T	GMV-ND90T/A-T	GMV-ND100T/A-T	GMV-ND112T/A-T	GMV-ND125T/A-T	GMV-ND140T/A-T	GMV-ND160T/A-T
Capacity	Cooling kW	8.0	9.0	10.0	11.2	12.5	14.0	16.0
	Heating kW	9.0	10.0	11.2	12.5	14.0	16.0	17.5
Power supply	V/Ph/Hz				220~240/1/50 & 208~230/1/60			
Power consumption	W	68	98	98	110	110	110	130
Airflow volume(H/M/L)	m³/h	1180/950/850	1500/1350/1100	1500/1350/1100	1700/1400/1100	1860/1500/1150	1860/1500/1150	2100/1700/1400
	CFM	696/550/550	860/705/650	880/795/650	1000/824/650	1095/880/677	1095/880/677	1235/1000/824
Rated Current <sup>2</sup>	Cooling A	0.3	0.4	0.4	0.5	0.5	0.6	0.6
	Heating A	0.3	0.4	0.4	0.5	0.5	0.6	0.6
	Water Heating A	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	38/36/33	40/37/35	40/37/35	41/38/36	43/41/38	43/41/38	47/44/42
Connecting pipe diameter	Liquid mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ19.05
Drain pipe	External dia. mm	25	25	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Main Body	Dimension (WxDxH) Outline	840x840x240	840x840x320	840x840x320	840x840x320	840x840x320	910x910x293	
	Package	963x963x325	963x963x409	963x963x409	963x963x409	963x963x409	1023x993x375	
	Net weight/Gross weight kg	26.5/34.5	32.5/40.0	32.5/40.0	32.5/40.0	32.5/40.0	46.5/56.5	
Panel	Dimension (WxDxH) Outline	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65	1040x1040x65	
	Package	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1137x1137x140	
	Net weight/Gross weight kg	7/11	7/11	7/11	7/11	7/11	7.5/11.5	
Loading quantity	40GP set	140	104	104	104	104	144	
	40HQ set	156	119	119	119	119	144	

### Compact 4-way Cassette Indoor Unit

50/60 Hz

Model		GMV-ND22T/B-T	GMV-ND28T/B-T	GMV-ND36T/B-T	GMV-ND45T/B-T	GMV-ND50T/B-T	GMV-ND60T/B-T
Capacity	Cooling kW	2.2	2.8	3.6	4.5	5.0	5.6
	Heating kW	2.5	3.2	4	5	5.6	6.3
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60			
Power consumption	W	35	35	35	45	45	45
Airflow volume(H/M/L)	m³/h	600/500/400	600/500/400	600/500/400	700/600/480	700/600/480	700/600/480
	CFM	355/295/235	355/295/235	355/295/235	410/355/283	410/355/283	410/355/283
Rated Current <sup>2</sup>	Cooling A	0.4	0.4	0.4	0.5	0.5	0.5
	Heating A	0.4	0.4	0.4	0.5	0.5	0.5
	Water Heating A	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	41/39/35	41/39/35	41/39/35	45/43/38	45/43/38	45/43/38
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7
Drain pipe	External dia. mm	25	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5	2.5
Main Body	Dimension (WxDxH) Outline	596x596x240	596x596x240	596x596x240	596x596x240	596x596x240	596x596x240
	Package	773x733x300	773x733x300	773x733x300	773x733x300	773x733x300	773x733x300
	Net weight/Gross weight kg	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5
Panel	Dimension (WxDxH) Outline	870x670x50	870x670x50	870x670x50	870x670x50	870x670x50	870x670x50
	Package	763x763x105	763x763x105	763x763x105	763x763x105	763x763x105	763x763x105
	Net weight/Gross weight kg	3.5/5.0	3.5/5.0				

## Wall-mounted Type Indoor Unit

The cooling capacity of wall-mounted type indoor unit ranges from 2.2kW~7.1kW, which can be widely adopted in hotels, restaurants, office, etc.



- Washable filter
- Auto clean
- Vertical swing
- Anti-cold function
- Quiet function
- Compact design
- Easier maintainability

### 50 Hz

Model		GMV-H220/A3A-K*	GMV-H280/A3A-K*	GMV-N38G/A3A-K*	GMV-N45G/A3A-K*	GMV-N50G/A3A-K*	GMV-N56G/A3A-K*	GMV-N63G/A3A-K*	GMV-N71G/A3A-K*
Capacity	Cooling kW	2.2	2.8	3.6	4.5	5.0	5.8	6.3	7.1
	Heating kW	2.5	3.2	4.0	5.0	5.8	6.3	7.0	7.5
Power supply	V/Ph/Hz								
Power consumption	W	60	50	60	60	70	70	70	70
Airflow volume(H/M/L)	m³/h	500/420/350	500/420/350	630/550/480	630/550/480	750/600/500	750/600/500	750/600/500	750/600/500
	CFM	294/247/206	294/247/206	371/324/282	371/324/282	441/353/294	441/353/294	441/353/294	441/353/294
Rated Current*	Cooling A	0.2	0.2	0.31	0.31	0.31	0.31	0.31	0.31
	Heating A	0.2	0.2	0.31	0.31	0.31	0.31	0.31	0.31
	Water Heating A	/	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	38/34/30	38/34/30	44/41/38	44/41/38	44/41/38	44/41/38	44/41/38	44/41/38
Connecting pipe diameter	Liquid mm	Φ6.35							
	Gas mm	Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7
Drain pipe	External dia. mm	Φ20	Φ20	Φ20	Φ20	Φ30	Φ30	Φ30	Φ30
	Thickness mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Dimension (WxDxH)	Outline mm	843x180x275		940x200x298		1008x221x319			
	Package mm	970x258x355		1065x285x380		1128x395x313			
Net weight/Gross weight	kg	10/12.5	10/12.5	12.5/15.5	12.5/15.5	12.5/15.5	15/18.5	15/18.5	15/18.5
Loading	40' GP set	702	702	557	557	557	441	441	441
	40' HQ set	819	819	624	624	624	503	503	503

Note:  
\* This series is without water pump.

## Floor Ceiling Type Indoor Unit



- Washable filter
- Quiet function
- Vertical swing
- Horizontal swing
- Compact design
- Easier maintainability

### 50/60 Hz

Model	GMV-ND28ZD/A-T	GMV-ND36ZD/A-T	GMV-ND50ZD/A-T	GMV-ND63ZD/A-T	GMV-ND71ZD/A-T	GMV-ND80ZD/A-T	GMV-ND112ZD/A-T	GMV-ND125ZD/A-T	GMV-ND140ZD/A-T
Capacity	Cooling kW	2.8	3.6	5.0	6.3	7.1	9.0	11.2	12.5
	Heating kW	3.2	4.0	5.6	7.1	8.0	10.0	12.5	14.0
Power supply	V/Ph/Hz						220~240/1/50 & 208~230/1/60		
Power consumption	W	40	40	50	75	75	140	160	160
Airflow volume(H/M/L)	m³/h	650/580/500	650/580/500	950/850/700	1400/1150/1000	1400/1150/1000	1600/1400/1200	2000/1800/1450	2000/1800/1450
	CFM	380/341/294	380/341/294	560/500/410	825/677/590	825/677/590	940/824/706	1175/1059/853	1175/1059/853
Rated Current*	Cooling A	0.2	0.2	0.25	0.38	0.38	0.7	0.95	0.95
	Heating A	0.2	0.2	0.25	0.38	0.38	0.7	0.95	0.95
	Water Heating A	/	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	36/34/32	36/34/32	42/38/33	44/42/39	44/42/39	50/47/43	51/47/42	52/49/45
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia. mm	Φ17	Φ17	Φ17	Φ17	Φ17	Φ17	Φ17	Φ17
	Thickness mm	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Dimension (WxDxH)	Outline mm	1220x700x225							
	Package mm	1343x823x315							
Net weight/Gross weight	kg	40/49	40/49	40/49	50/58	50/58	50/58	60/68	60/68
Loading	40' GP set	145	145	145	90	90	90	84	84
	40' HQ set	158	158	158	98	98	98	98	98

## Console Indoor Unit

The cooling capacity of console indoor unit ranges from 2.2kW~5.0kW, which can be widely adopted in hotels, restaurants, office, etc.



- Vertical swing
- Anti-cold function
- Self-diagnosis
- Quiet function
- Comprehensive protection
- Auto Restart
- Compact design
- Easier maintainability

### 50/60 Hz

Model	GMV-ND22C/A-T	GMV-ND28C/A-T	GMV-ND36C/A-T	GMV-ND45C/A-T	GMV-ND50C/A-T
Capacity	Cooling kW	2.2	2.8	3.6	4.5
	Heating kW	2.5	3.2	4.0	5.0
Power supply	V/Ph/Hz				
Power consumption	W	15	15	20	40
Airflow volume(H/M/L)	m³/h	430-400/320/270	430-400/320/270	570-480/400/300	280-680/600/500
	CFM	253-235/188/159	253-235/188/159	335-282/235/188	460-400/353/294
Rated Current*	Cooling A	0.15	0.15	0.15	0.15
	Heating A	0.15	0.15	0.15	0.15
	Water Heating A	/	/	/	/
ESP	Pa	0	0	0	0
Sound pressure level(H/M/L)	dB(A)	38/33/27	38/33/27	40/37/32	46/43/39
Connecting pipe diameter	Liquid mm	6.35	6.35	6.35	6.35
	Gas mm	9.52	9.52	9.52	9.52
Drain pipe	External dia. mm	17.2	17.2	17.2	17.2
	Thickness mm	1	1	1	1
Dimension (WxDxH)	Outline mm	700/215/600	700/215/600	700/215/600	700/215/600
	Package mm	788/283/697	788/283/697	788/283/697	788/283/697
Net weight/Gross weight	kg	16/19	16/19	16/19	16/19
Loading	40' GP set	387	387	387	387
	40' HQ set	433	433	433	433

## Floor Standing Type Indoor Unit

The cooling capacity of floor standing type indoor unit ranges from 10kW~14kW, which can be widely adopted in hotels, restaurants, office, etc.



50/60 Hz

Model	GMV-ND100LJA-T	GMV-ND140LJA-T
Capacity	Cooling kW Heating kW	10 11
Power supply	V/Ph/Hz	220-240/1/50 & 208-230/1/60
Power consumption	W	185 185
Airflow volume(H/M/L)	m³/h CFM	1850/1600/1400 1089/942/824
Rated Current <sup>2</sup>	Cooling A Heating A Water Heating A	1.5 1.5 /
ESP	Pa	0 0
Sound pressure level(H/M/L)	dB(A)	50/46/46 50/46/46
Connecting pipe diameter	Liquid mm Gas mm	9 16
Drain pipe	External dia. mm Thickness mm	31 4.5
Dimension (WxDxH)	Outline mm Package mm	1870x580x400 2083/738/545
Net weight/Gross weight	kg	54/74 57/78
Loading	40' GP set 40' HQ set	67 67

- Quiet function
- Horizontal swing
- Vertical swing
- Easier maintainability
- Self-diagnosis
- Memory Function
- Anti-cold function
- Turbo function

## Fresh Air Processing Indoor Unit

Fresh air processing indoor unit is widely adopted in villas, high-end communities, business places and public places. It introduces outdoor fresh air into the room to improve the air quality without fluctuation of indoor temperature, which belongs to the most advanced and comfortable VRF air conditioning technology.



- Fresh air supply ventilation
- Energy saving function
- Compact design

50 Hz

Model	GMV-NX140P/A(X1.2)-K*	GMV-NX224P/A(X2.0)-M*	GMV-NX286P/A(X2.5)-M*	GMV-NX280P/A(X3.0)-M*	GMV-NX450P/A(X4.0)-M*
Capacity	Cooling kW Heating kW	14.0 10.0	22.4 16.0	28.0 20.0	28.0 20.0
Power supply	V/Ph/Hz	220-240/1/50		380-415/3/50	
Power consumption	W	380	740	780	1080
Airflow volume(H/M/L)	m³/h CFM	1200 705	2000 1175	2500 1470	3000 1785
Rated Current <sup>2</sup>	Cooling A Heating A	1.82 1.82	1.32 1.32	1.36 1.36	1.89 1.89
Water Heating	A	/	/	/	/
ESP	Pa	150	200		
Sound pressure level(H/M/L)	dB(A)	42	47	48	51
Connecting pipe diameter	Liquid mm Gas mm	Φ9.52 Φ15.9	Φ9.52 Φ19.05	Φ9.52 Φ22.2	Φ12.7 Φ28.6
Drain pipe	External dia. mm Thickness mm	25 2.5	25 2.5	25 2.5	25 2.5
Dimension	Outline (WxDxH) mm	1463 x 756 x 300		1500 x 1000 x 500	1700 x 1100 x 650
	Package mm	1514x785x360		1840x1200x673	1890x1460x835
Net weight/Gross weight	kg	63.5/71	130/182	134/188	134/188
Loading	40' GP set 40' HQ set	84.0 98.0	18.0 18.0	18.0 18.0	16.0 16.0

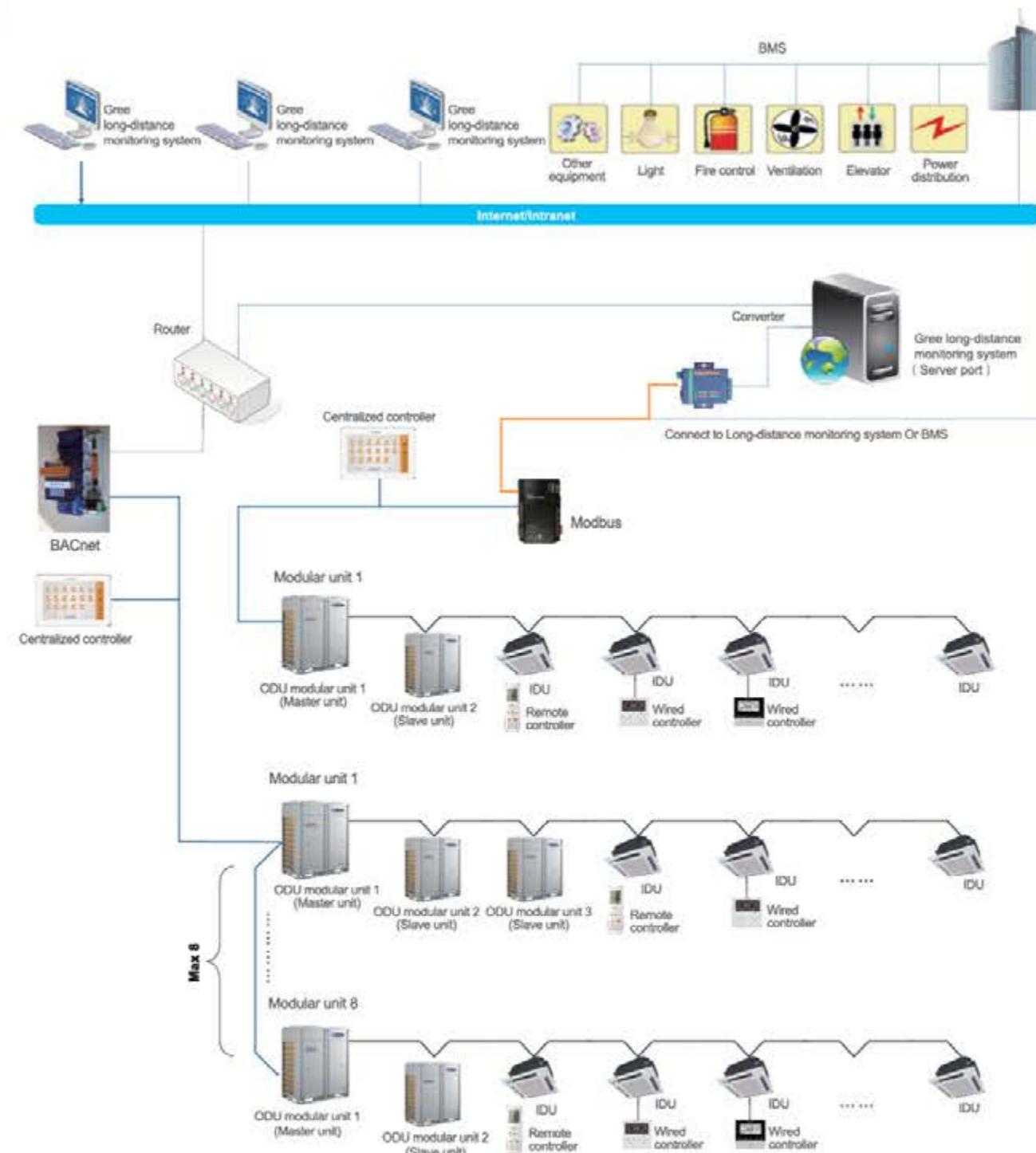
Note: \* This series can be matched with GMV5(Top discharge outdoor unit)only.

## Control System Lineup

Controlling system	Product series	Cassette Type	(High ESP, Low ESP, Slim Ducted) Duct Type	Fresh Air Processing	Wall mounted Type	Floor Ceiling Type	Console Type	Floor Standing Type
Wireless Controller	YAP1F		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	YV1L1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wired controller	XX46		<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	XX49		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	XK55		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	JS05(receiver)			<input type="radio"/>	<input type="radio"/>			
Centralized Controller	CE52-24/F(C)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	CE53-24/F(C)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long-distance monitoring software	FE31-00/AD(BM)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BMS Accessories	ME30-24/E4(M)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	GMV BACnet gateway (BACnet)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other modules	Optoelectronic isolated converter		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Optoelectronic isolated signal multiplexer		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Note: + means standard, - means optional.

## GMV Network



## Inverter Series

It is a kind of VRF system that adopt DC inverter compressor and the outdoor unit could be connected with several indoor units to realize independent cooling or heating control in different rooms.

GMV Mini



GMV IV



Golden fin condenser



Inner groove copper



High efficiency



Intelligent defrosting



Energy saving function



Long-distance monitoring



Quiet function



Modular operating\*



Wide voltage range



Wide operation range



Compact design



Easier maintainability



Centralized control

- Advanced control functions.
  - DC inverter scroll compressor.
  - Better reliability.
  - ECO-friendly R410A refrigerant.
  - Compact outdoor unit.
  - Flexible piping Design.
  - Greatly improved energy efficiency\*: Significantly greater efficiency is realized by the use of DC inverter compressors with high pressure chamber design, improved DC inverter driving technology and large heat exchanger.
  - Modular outdoor unit design\*: Various combination form 8HP to 64HP with 2HP increments. Max. capacity of outdoor units is 180kW (4 modules combination).
  - Various combinations\*: Up to 110 sets of indoor units can be connected. 6 types and 73 models of indoor unit. Max. diversity is 135%.
- \* For GMV IV only.

Max. piping length (meter)	GMV Mini	GMV IV
Total piping length	150m	500m
Actual piping length	70m	150m
Equivalent piping length	80m	175m
Height difference between indoor units	10m	15m
Height difference between outdoor unit and indoor unit (outdoor unit is located above the indoor unit)	30m	50m
Height difference between indoor unit and outdoor unit (outdoor unit is located underneath the indoor unit)	25m	40m
Piping length from first indoor branch to the farthest indoor unit	25m	40m

## GMV Mini

Item	Nominal operating condition (temperature)			Operating range (temperature)		
	Outdoor condition		Indoor condition		Outdoor condition	
	DB(°C)	WB(°C)	DB(°C)	WB(°C)	DB(°C)	
Cooling	35	24	27	19	10~46	
Heating	7	6	20	15	-20~27	

Model	Heat pump	GMV-Pd100W/NaB-M		GMV-Pd120W/NaB-M		GMV-Pd140W/NaB-M		GMV-Pd160W/NaB-M		GMV-Pd180W/NaB-M		GMV-Pd200W/NaB-M			
		Capacity	kW	10.0	12.1	14.0	16.0	14.0	16.0	14.0	16.0	14.0	16.0		
Capacity	Cooling	kW	10.0	12.1	14.0	16.0	14.0	16.0	14.0	16.0	14.0	16.0			
Capacity	Heating	kW	11.0	14.0	15.4	17.6	15.4	17.6	15.4	17.6	15.4	17.6			
EER/COP	Cooling/Heating	W/W	3.50/4.23	3.46/4.12	3.21/3.80	3.21/3.63	3.11/3.30	3.14/3.67							
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	3/380-415/50	3/380-415/50							
Power input	Cooling	kW	2.86	3.50	4.36	4.98	4.50	5.10							
Power input	Heating	kW	2.60	3.40	4.05	4.85	4.30	4.80							
Refrigerant charge volume	kg	7.5	7.5	7.5	7.5	7	7								
Compressor configuration	—	DC×1	DC×1	DC×1	DC×1	DC×1	DC×1								
Sound pressure level	dB(A)	58	58	58	60	58	60								
Dimension (W×D×H)	Outline	mm	950×340×1250	950×340×1250	950×340×1250	950×340×1250	950×340×1250	950×340×1250							
Dimension (W×D×H)	Package	mm	1113×453×1400	1113×453×1400	1113×453×1400	1113×453×1400	1113×453×1400	1113×453×1400							
Net weight/Gross weight	kg	111/122	111/122	111/122	115/122	115/122	115/122								
Connecting pipe diameter	Gas	inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ3/4(19.05)	φ5/8(15.9)	φ3/4(19.05)							
Connecting pipe diameter	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)							
Max. equivalent connection pipe length*	m	80	80	80	80	80	80								
Maximum drive IDU NO.	unit	8	7	8	9	8	9								
Loading quantity	40'GP	set	53	53	53	53	53	53							
Loading quantity	40HQ	set	53	53	53	53	53	53							

D: DC inverter dual-rotor type compressor

\* From outdoor unit to last indoor unit.

## GMV IV

Item	Nominal operating condition (temperature)			Operating range (temperature)		
	Outdoor condition		Indoor condition		Outdoor condition	
	DB(°C)	WB(°C)	DB(°C)	WB(°C)	DB(°C)	
Cooling	35	24	27	19	-15~46	
Heating	7	6	20	15	-20~27	

Model	Heat pump	GMV-Pdm224W/NaB-M		GMV-Pdm260W/NaB-M		GMV-Pdm335W/NaB-M		GMV-Pdm400W/NaB-M		GMV-Pdm450W/NaB-M	
		Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0	55.0	60.0
Capacity	Cooling	kW	25.0	31.5	37.5	45.0	50.0	55.0	60.0	65.0	70.0
Capacity	Heating	kW	26.0	32.0	38.0	45.0	50.0	55.0	60.0	65.0	70.0
EER/COP	Cooling/Heating	W/W	4.06/4.30	3.72/4.08	3.36/4.00	3.21/4.02	3.14/3.60				
Power supply		Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50				
Power input	Cooling	kW	5.52	7.52	9.23	12.45	14.32				
Power input	Heating	kW	5.82	7.7	9.38	11.2	13.9				
Refrigerant charge volume	kg	12	13	15	16	17					
Compressor configuration	—	DC×1+F1	DC×1+F1	DC×1+F2	DC×1+F2	DC×1+F2					
Sound pressure level	dB(A)	58	58	60	61	61					
Dimension (W×D×H)	Outline	mm	930×770×1670	930×770×1670	1340×770×1670	1340×770×1670	1340×770×1670				
Dimension (W×D×H)	Package	mm	1013×853×1865	1013×853×1865	1423×853×1865	1423×853×1865	1423×853×1865				
Net weight/Gross weight	kg	263/280	263/280	369/390	369/390	386/407					
Connecting pipe diameter	Gas	inch(mm)	φ7/8(22.2)	φ7/8(22.2)	φ9/8(28.6)	φ9/8(28.6)	φ9/8(28.6)				
Connecting pipe diameter	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)				
Oil balance	inch(mm)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)					
Max. equivalent connection pipe length*	m	150	150	150	150	150					
Maximum drive IDU NO.	unit	14	14	16	16	16					
Loading quantity	40'GP	set	24	24	16	16	16				
Loading quantity	40HQ	set	24	24	16	16	16				

DC: DC inverter scroll compressor F: Fixed frequency scroll compressor

\* From outdoor unit to last indoor unit.

## Outdoor Units Lineup—Inverter Series

MODEL	GMV-Pdm224W/NaB-M (8HP)					GMV-Pdm260W/NaB-M (10HP)					GMV-Pdm335W/NaB-M (12HP)					GMV-Pdm400W/NaB-M (14HP)					GMV-Pdm450W/NaB-M (16HP)				
GMV-Pdm224W/NaB-M (8HP)	GMV-Pdm260W/NaB-M (10HP)	GMV-Pdm335W/NaB-M (12HP)	GMV-Pdm400W/NaB-M (14HP)	GMV-Pdm450W/NaB-M (16HP)	GMV-Pdm500W/NaB-M (18HP)	GMV-Pdm560W/NaB-M (20HP)	GMV-Pdm615W/NaB-M (22HP)	GMV-Pdm670W/NaB-M (24HP)	GMV-Pdm730W/NaB-M (26HP)	GMV-Pdm785W/NaB-M (28HP)	GMV-Pdm850W/NaB-M (30HP)	GMV-Pdm900W/NaB-M (32HP)	GMV-Pdm960W/NaB-M (34HP)	GMV-Pdm1008W/NaB-M (36HP)	GMV-Pdm1065W/NaB-M (38HP)	GMV-Pdm1130W/									

# HOME GMV

(Inverter series with water heater)

INVERTER R410A

Outdoor Unit



Water Tank



Hydro Box



Item	Outdoor condition		Indoor condition		Water	
	DB(°C)	WB(°C)	DB(°C)	WB(°C)	Start(°C)	End(°C)
Cooling	35	24	27	19	—	—
Heating	7	6	20	15	—	—
Hot water	20	15	—	—	15	55

Operation range	Mode		Outdoor Condition(DB°C)	
	Cooling		-5°C~48°C	
	Heating		-20°C~27°C	
	Water heating		-15°C~43°C	
	Cooling and water heating		-5°C~43°C	
	Heating and water heating		-15°C~24°C	

## Outdoor Unit

Model	GMV-Pds100W/Na-K	GMV-Pds120W/Na-K	GMV-Pds140W/Na-K	GMV-Pds160W/Na-K	GMV-Pds224W/Na-M	GMV-Pds280W/Na-M
Capacity	Cooling kW	10.0	12.0	14.0	16.0	22.4
	Heating kW	11.0	13.2	15.4	17.6	25.0
ECOP	W/W	6.0	6.0	6.6	6.8	6.4
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	3/380-415/50	3/380-415/50
Refrigerant charge volume	kg	5	5	7	15	16
Compressor configuration*	—	DC×1	DC×1	DC×1	DC×1+F×1	DC×1+F×1
Rated power input	Cooling kW	4.50	5.00	5.50	5.90	6.82
	Heating kW	3.80	4.20	4.90	5.30	6.97
	Water heating kW	2.00	2.00	2.86	2.86	8.00
Airflow volume	m³/h	6400	6400	6400	10000	10000
	CFM	3766	3766	3766	5885	5885
Sound pressure level	dB(A)	56	56	58	60	58
Dimension (W×D×H)	Outline mm	950×340×1250	950×340×1250	950×340×1250	930×770×1670	930×770×1670
	Package mm	1113×453×1385	1113×453×1385	1113×453×1385	1013×853×1865	1013×853×1865
Net weight/Gross weight	kg	105/115	105/115	115/125	115/125	265/285
Connecting pipe diameter	Gas (AC) inch(mm)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ7/8(22.2)	φ7/8(22.2)
	Liquid(AC) inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
	Gas(water) inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ3/4(19.05)	φ3/4(19.05)
	Liquid(water) inch(mm)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)	φ5/8(15.9)
Loading quantity	40'GP set	54	54	54	28	28
	40'HQ set	54	54	54	28	28

DC: DC inverter scroll compressor F: Fixed frequency scroll compressor

## Water Tank

Model	SXD200LC-K	SXD300LC-K	SXD350LC-K	SXD400LC-K	SXD200LCJ/A-K	SXD300LCJ/A-K
Tank volume L	200	300	350	400	200	300
Max. working pressure MPa	0.7	0.7	0.7	0.7	0.7	0.7
Auxiliary electrical heater power input kW	1.5	1.5	1.5	1.5	3.0	3.0
Power supply Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Dimension						
Thickness(inner) mm	1.5	1.5	1.5	1.5	1.5	1.5
Thickness(external) mm	50	45	45	50	45	45
Outline diameter mm	540	620	620	640	620	620
Outline height mm	1595	1620	1895	2125	1585	1620
Package(W×D×H) mm	625×1620×630	705x1645x710	705x1920x710	705x1645x710	625x1620x630	705x1645x710
Net weight/Gross weight kg	57/66	71/81	79/90	86/98	68/77	82/92
Outer diameter						
Circular pipe inch(mm)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)
Cold water pipe inch(mm)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)
Hot water pipe inch(mm)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)
Loading quantity	40'GP set	78	63	51	78	63
	40'HQ set	104	63	51	104	63

Model	SXD350LCJ/A-K	SXD400LCJ/A-K	SXD200LCJ2/A-K	SXD300LCJ2/A-K	SXD350LCJ2/A-K	SXD400LCJ2/A-K
Tank volume L	350	400	200	300	350	400
Max. working pressure MPa	0.7	0.7	0.7	0.7	0.7	0.7
Auxiliary electrical heater power input kW	3	3	3	3	3	3
Power supply Ph/V/Hz	1/220-240/50Hz	1/220-240/50Hz	1/220-240/50Hz	1/220-240/50Hz	1/220-240/50Hz	1/220-240/50Hz
Dimension						
Thickness(inner) mm	1.5	1.5	1.5	1.5	1.5	1.5
Thickness(external) mm	45	45	50	45	45	45
Outline diameter mm	620	620	540	620	620	620
Outline height mm	1895	2125	1595	1620	1895	2125
Package(W×D×H) mm	705x1920x722	705x2150x722	625x1620x630	705x1645x710	705x1920x722	705x2150x722
Net weight/Gross weight kg	96/122	106/134	71/80	87/97	100/126	110/139
Outer diameter						
Circular pipe inch(mm)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)	G3/4(19.05)
Cold water pipe inch(mm)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)
Hot water pipe inch(mm)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)	G1/2(12.7)
Loading quantity	40'GP set	54	51	78	63	51
	40'HQ set	54	51	104	63	54

## Hydro Box

Model	RQ3GB-K	RQ3GB-A-K	RQ20LA-K	RQ30LA-K	RQ20
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## Indoor Units Lineup (for Inverter Series &amp; HOME GMV)

		Capacity Index (kw)															
		2.2	2.8	3.6	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	22.4	28.0
Duct		High ESP type		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Slim type		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cassette		4-way		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Compact 4-way		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		1-way		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Wall mounted		EXV integrated		●	●	●	●	●	●	●	●	●	●	●	●	●	●
		Floor ceiling		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Console				●	●	●	●	●	●	●	●	●	●	●	●	●	●
Floor standing				●	●	●	●	●	●	●	●	●	●	●	●	●	●

## High ESP Duct Type Indoor Unit

Fresh air supply ventilation<sup>\*1</sup>

Quiet function



High ESP

Multi fan speed<sup>\*2</sup>

Compact design



Easier maintainability



Key-card control

<sup>\*1</sup> For the unit between 5.6kW to 14kW    <sup>\*2</sup> For the unit below 15kW.

Model	without drain water pump		GMV-R22P/NaB-K	GMV-R28P/NaB-K	GMV-R36P/NaB-K	GMV-R45P/NaB-K	GMV-R56P/NaB-K	GMV-R71P/NaB-K
	Cooling	Heating	kW	kW	kW	kW	kW	kW
Capacity	Cooling	Heating	2.2	2.8	3.6	4.5	5.6	7.1
	Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
	Motor power input	W	75	80	80	140	240	240
	Air flow volume	m <sup>3</sup> /h	450	570	570	700	1000	1100
	Standard ESP	Pa	20/50	20/50	20/50	20/50	30/60	30/60
	Sound pressure level	dB(A)	37/35/33	39/37/35	39/37/35	40/38/36	44/42/40	45/43/41
Dimension (WxDxH)	Outline	mm	580×665×250	580×665×250	860×665×250	980×721×266	1155×736×300	1155×736×300
	Package	mm	1023×748×320	1023×748×320	1023×748×320	1123×798×323	1248×788×375	1248×788×375
Net weight/ Gross weight	without DWP*	kg	27/31	28.5/33.5	28.5/33.5	34/37	49/56	49/56
	with DWP*	kg	28.5/33.5	30.5/35.5	30.5/35.5	36/39	51/58	51/58
Connecting pipe diameter	Gas	inch/mm	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)	φ5/8(15.9)
	Liquid	inch/mm	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40GP	set	192	192	192	180	108	108
	40HQ	set	192	192	192	180	108	108

Model	without drain water pump		GMV-R90P/NaB-K	GMV-R112P/NaB-K	GMV-R140P/NaB-K	GMV-R224P/NaB-M	GMV-R280P/NaB-M
	Cooling	Heating	kW	kW	kW	—	—
Capacity	Cooling	Heating	9.0	11.2	14.0	22.4	28.0
	Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	3/380-415/50	3/380-415/50
	Motor power input	W	360	360	500	1600	1600
	Air flow volume	m <sup>3</sup> /h	1700	1700	2000	4000	4800
	Standard ESP	Pa	40/80	40/80	50/100	200	220
	Sound pressure level	dB(A)	48/46/44	48/46/44	50/48/46	56	57
Dimension (WxDxH)	Outline	mm	1425×736×300	1425×736×300	1425×736×300	1463×799×389	1628×869×454
	Package	mm	1517×788×375	1517×788×375	1517×788×375	1543×883×485	1748×1028×595
Net weight/ Gross weight	without DWP*	kg	62/71	62/71	63.5/73	90/110	115/145
	with DWP*	kg	64/73	64/73	65.5/75	—	—
Connecting pipe diameter	Gas	inch/mm	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ7/8(22.2)	φ7/8(22.2)
	Liquid	inch/mm	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40GP	set	90	90	90	56	36
	40HQ	set	90	90	90	70	48

\* DWP means drain water pump.

## Slim Duct Type Indoor Unit



- Built-in drain pump
- Fresh air supply ventilation
- Quiet function
- Multi fan speed
- Compact design
- Easier maintainability
- Key-card control

Model	GMV-R22PS/NsE-K	GMV-R28PS/NsE-K	GMV-R36PS/NsE-K	GMV-R45PS/NsE-K	GMV-R56PS/NsE-K	GMV-R71PS/NsE-K
Capacity	Cooling kW	2.2	2.8	3.6	4.5	5.6
	Heating kW	2.5	3.2	4.0	5.0	6.0
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input	W	64	84	70	91	91
Air flow volume	m³/h	450	450	550	700	700
Standard ESP	CFM	265	265	324	412	412
Sound pressure level	Pa	20	20	20	20	20
Dimension (W×D×H)	Outline mm	700×615×200	700×615×200	700×615×200	900×615×200	900×615×200
	Package mm	893×743×305	893×743×305	893×743×305	1123×743×305	1123×743×305
Net weight/ Gross weight	kg	21/27	21/27	22/28	26/33	26/33
Connecting pipe diameter	Gas inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)
	Liquid inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)
Loading quantity	40'GP set	234	234	234	180	180
	40'HQ set	234	234	234	180	162

## 4-way Cassette

Model	GMV-R28T/Ns-K		GMV-R36T/Ns-K		GMV-R45T/Ns-K		GMV-R56T/Ns-K		GMV-R56T/Ns-K		GMV-R63T/Ns-K		GMV-R71T/Ns-K	
Capacity	Cooling kW	2.8	3.6	4.5	5.0	5.6	6.3	7.1	8.0	8.8	10.0	11.2	12.5	14.0
	Heating kW	3.2	4.0	5.0	5.8	6.3	7.0	8.0	8.8	10.0	11.0	12.5	13.5	14.5
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input	W	65	65	65	65	65	65	65	65	65	65	65	65	65
Air flow volume	m³/h	680	680	680	680	680	680	680	680	1180	1180	1180	1180	1180
Sound pressure level	dB(A)	37/35/33	37/35/33	37/35/33	37/35/33	37/35/33	37/35/33	37/35/33	37/35/33	39/37/35	39/37/35	39/37/35	39/37/35	39/37/35
Main body	Dimension (W×D×H)	Outline mm	840×840×190	840×840×190	840×840×190	840×840×190	840×840×190	840×840×190	840×840×190	840×840×240	840×840×240	840×840×240	840×840×240	840×840×240
	Package	mm	963×963×272	963×963×272	963×963×272	963×963×272	963×963×272	963×963×272	963×963×272	963×963×325	963×963×325	963×963×325	963×963×325	963×963×325
Panel	Dimension (W×D×H)	Outline mm	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60
	Package	mm	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130
Net weight/Gross weight	kg	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10	6.5/10
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)
	Liquid	inch(mm)	φ1/4(6.32)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)						
Loading quantity	40'GP	set	130	130	130	130	130	130	107	107	107	107	107	107
	40'HQ	set	134	134	134	134	134	134	134	134	134	134	134	134

## Compact 4-way Cassette & 1-way Cassette

## Cassette Type Indoor Unit



- Built-in drain pump
- Washable filter
- Quiet function
- Compact design
- Easier maintainability

Model	Compact 4-way Cassette				1-way Cassette			
	GMV-R22T/NsA-K	GMV-R28T/NsA-K	GMV-R36T/NsA-K	GMV-R45T/NsA-K	GMV-R22Td/Ns-K	GMV-R28Td/Ns-K	GMV-R36Td/Ns-K	GMV-R45Td/Ns-K
Capacity	Cooling kW	2.2	2.8	3.6	4.5	2.2	2.8	3.6
	Heating kW	2.5	3.2	4.0	5.0	2.5	3.2	4.0
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input	W	12	12	12	12	42	42	42
Air flow volume	m³/h	600	600	600	600	450	500	500
Sound pressure level	dB(A)	47/41	47/41	47/41	47/41	45/43/41	45/43/41	45/43/41
Main body	Dimension (W×D×H)	Outline mm	650×640×230	650×640×230	650×640×230	650×640×230	920×360×185	920×360×185
	Package	mm	851×731×325	851×731×325	851×731×325	851×731×325	1293×468×285	1293×468×285
Panel	Dimension (W×D×H)	Outline mm	650×650×50	650×650×50	650×650×50	650×650×50	1180×430×30	1180×430×30
	Package	mm	733×673×117	733×673×117	733×673×117	733×673×117	1263×508×125	1263×508×125
Net weight/Gross weight	kg	2.0/27	2.0/27	2.0/27	2.0/27	16/25	16/25	16/25
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ3/8(9.52)	φ3/8(9.52)
	Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)
Loading quantity	40'GP	set	209	209	209	209	203	203
	40'HQ	set	246	246	246	246	216	216

## Wall Mounted Type Indoor Unit



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### EXV Integrated

Model		GMV-R22G/NaG-K	GMV-R28G/NaG-K	GMV-R36G/NaG-K	GMV-R45G/NaG-K
Capacity	Cooling	kW	2.2	2.8	3.6
	Heating	kW	2.5	3.2	4.0
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input		W	50	50	60
Air flow volume		m³/h	500	500	630
		CFM	294	294	371
Sound pressure level (H/M/L)		dB(A)	38/34	38/34	44/38
Dimension (W×D×H)	Outline	mm	843×180×275	843×180×275	940×200×298
	Package	mm	918×258×370	918×258×370	1013×288×395
Net weight/Gross weight		kg	10.5/12.5	10.5/12.5	13/16
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)
	Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)
Loading quantity	40'GP	set	702	702	557
	40'HQ	set	819	819	624

## Floor Ceiling Type Indoor Unit



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### EXV Integrated

Model		GMV-R28Zd/NaB-K	GMV-R36Zd/NaB-K	GMV-R50Zd/NaB-K	GMV-R71Zd/NaB-K
Capacity	Cooling	kW	2.8	3.6	5.0
	Heating	kW	3.2	4.0	5.8
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input		W	55	55	110
Air flow volume		m³/h	650	650	950
		CFM	383	383	559
Sound pressure level		dB(A)	40	40	45
Dimension (W×D×H)	Outline	mm	1220×700×225	1220×700×225	1220×700×225
	Package	mm	1343×823×315	1343×823×315	1343×823×315
Net weight/Gross weight		kg	40/50	40/50	52/61
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)
	Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)
Loading quantity	40'GP	set	132	132	90
	40'HQ	set	132	132	90

Model		GMV-R50G/NaG-K	GMV-R56G/NaG-K	GMV-R63G/NaG-K	GMV-R71G/NaG-K
Capacity	Cooling	kW	5.0	5.6	6.3
	Heating	kW	5.8	6.3	7.0
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input		W	60	70	70
Air flow volume		m³/h	630	800	800
		CFM	371	471	471
Sound pressure level (H/M/L)		dB(A)	44/38	44/38	44/38
Dimension (W×D×H)	Outline	mm	940×200×298	1008×221×319	1008×221×319
	Package	mm	1013×288×395	1076×316×410	1076×316×410
Net weight/Gross weight		kg	13/16	15/20	15/20
Connecting pipe diameter	Gas	inch(mm)	φ1/2(12.7)	φ5/8(15.9)	φ5/8(15.9)
	Liquid	inch(mm)	φ1/4(6.32)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40'GP	set	557	441	441
	40'HQ	set	624	503	503

Model		GMV-R90Zd/NaB-K	GMV-R112Zd/NaB-K	GMV-R125Zd/NaB-K	GMV-R140Zd/NaB-K
Capacity	Cooling	kW	9.0	11.2	12.5
	Heating	kW	10.0	12.5	13.5
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input		W	180	250	250
Air flow volume		m³/h	1600	2000	2000
		CFM	942	1177	1177
Sound pressure level		dB(A)	51	55	55
Dimension (W×D×H)	Outline	mm	1420×700×245	1700×700×245	1700×700×245
	Package	mm	1548×828×345	1828×828×345	1828×828×345
Net weight/Gross weight		kg	54/63	64/72	66/74
Connecting pipe diameter	Gas	inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)
	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40'GP	set	84	72	72
	40'HQ	set	90	84	84

## Console Indoor Unit



- Vertical swing
- Anti-cold function
- Self-diagnosis
- Quiet function
- Comprehensive protection
- Auto Restart
- Compact design
- Easier maintainability

Model	GMV-R28C/Ns-K		GMV-R36C/Ns-K		GMV-R50C/Ns-K	
Capacity	Cooling kW	2.8	3.6	5.0		
	Heating kW	3.2	4.0	5.5		
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50		
Motor power input	W	60	60	60		
Air flow volume	m³/h	500-430/370/280	600-520/440/360	650-620/500/410		
Sound pressure level	CFM	294-253/218/165	353-306/259/212	383-365/294/241		
Dimension (W×D×H)	Outline mm	38/33/26	40/37/32	46/41/35		
	Package mm	700×215×600	700×215×600	700×215×600		
Net weight/Gross weight	kg	16/19	16/19	16/19		
Connecting pipe diameter	Gas inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)		
	Liquid inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)		
Loading quantity	40'GP set	387	387	387		
	40'HQ set	433	433	433		

## Floor Standing Type Indoor Unit



- Quiet function
- Horizontal swing
- Vertical swing
- Easier maintainability
- Self-diagnosis
- Memory Function
- Anti-cold function
- Turbo function

Model	GMV-R71LNs-K		GMV-R100LNs-K		GMV-R140LNs-K	
Capacity	Cooling kW	7	10	14		
	Heating kW	8	11	15		
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50		
Motor power input	W	160	185	200		
Air flow volume	m³/h	1100	1600	1700		
Sound pressure level	CFM	655	952	1012		
Dimension (W×D×H)	Outline mm	502×316×1756	556×381×1896	556×381×1896		
	Package mm	633×450×1943	738×545×2083	738×545×2083		
Net weight/Gross weight	kg	39/60	53/73	57/77		
Connecting pipe diameter	Gas inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)		
	Liquid inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)		
Loading quantity	40'GP set	95	67	67		
	40'HQ set	95	67	67		

## Branching Joint

### For Indoor Units

Model	Indoor unit total capacity X (kW)	Appearance	
		Gas pipe	Liquid pipe
FQ01A/A	X≤20		
FQ01B/A	20 < X ≤ 30		
FQ02/A	30 < X ≤ 70		
FQ03/A	70 < X ≤ 135		
FQ04/A	135 < X		
FQ05/A	—		

### For Outdoor Units

Model	Outdoor unit total capacity X (kW)	Appearance	
		Gas pipe	Liquid pipe
ML01/A	20 ≤ X ≤ 56		

# GMV5 HR

(Heat Recovery Series)

GMV5 Heat Recovery System embodies the excellent features of GMV5(DC inverter technology, DC fan linkage control, precise control of capacity output, balancing control of refrigerant, original oil balancing technology with high pressure chamber, high-efficiency output control, low-temperature operation control technology, super heating technology, high adaptability for project, environmental refrigerant). Its energy efficiency is improved by 78% compared with conventional multi VRF.



Golden fin condenser	Inner groove copper	High efficiency	Intelligent defrosting	Long-distance monitoring	Quiet function	Modular operating*	Comprehensive protection	Wide voltage range

- All DC Inverter Technology. All DC Inverter compressor is used in this system. It can directly intake gas to reduce loss of overheat and improve efficiency.
- 82 Pa Wide Application Location
- Advanced Control Functions.
- Better Reliability
- Wide Operation Range: Cooling: -5°C~52°C; Heating: -20°C~24°C; Cooling and heating: -10°C~20°C
- Flexible Piping Design

## Outdoor Units Lineup-GMV5 Heat Recovery Series

HP	Model	Product Outlook
8HP	GMV-Q224WM/B-X	
10HP	GMV-Q280WM/B-X	
12HP	GMV-Q335WM/B-X	
14HP	GMV-Q400WM/B-X	
16HP	GMV-Q450WM/B-X	

Model	Product Outlook
NCHS1B	
NCHS4B	
NCHS8B	

INVERTER R410A

## Specification and Parameters

50/60 Hz

Model	GMV-Q224WM/B-X	GMV-Q280WM/B-X	GMV-Q335WM/B-X	GMV-Q400WM/B-X	GMV-Q450WM/B-X
Capacity range	HP	8	10	12	14
Capacity	Cooling kW	22.4	28	33.5	40
	Heating kW	25	31.5	37.5	45
EER	W/W	4.07	3.73	3.76	3.54
COP	W/W	4.17	3.89	3.68	3.85
IPLV	Cooling kW/kW	/	/	/	/
Power Supply	V/Ph/Hz		380~415V-3Ph-50/60Hz		
Max. circuit fuse current	A	15.7/20	20.9/25	24.7/32	28.8/40
Power consumption	Cooling kW	5.5	7.5	8.9	11.3
	Heating kW	6	8.1	10.2	13.8
Maximum drive IDU NO.	unit	13	16	19	23
Refrigerant Charge volume	kg	6.2	7.1	8.6	10.2
Sound pressure level	dB(A)	60	61	63	63
Connecting pipe	Liquid mm	Φ9.52			Φ12.7
	Gas(Low pressure) mm	Φ19.05	Φ22.2		Φ28.6
	Gas(High pressure) mm		Φ19.05	Φ25.4	Φ22.2
Dimension (W*D*H)	Outline mm	930*785*1605		1340*785*1605	
	Package mm	1010*840*1775		1420*840*1775	
Net weight/Gross weight	kg	233/243	233/243	303/318	360/375
Loading quantity	40' GP set	24	24	16	16
	40' HQ set	24	24	16	16

50 Hz

Model	NCHS1B	NCHS4B	NCHS8B
Max.IDU Branches	unit	1	4
No. of connectable IDU of each branch	unit	8	8
Total Connectable IDU	unit	8	32
Max. Capacity of each branch	W/W	14	14
Max. Capacity of connectable IDU	W/W	14	45
Power supply	V/Ph/Hz		220-240V-1Ph-50Hz
Power consumption	W	20	30
Maximum drive IDU NO.	unit	1	4
	Liquid mm	Φ9.52	Φ12.7
Outdoor Unit Piping Connection	Gas(Low pressure) mm	Φ15.9	Φ22.2
	Gas(High pressure) mm	Φ19.05	Φ28.6
Indoor Unit Piping Connection	Liquid mm	Φ9.5	Φ9.5
	Gas mm	Φ15.9	Φ15.9

## Specifications of Indoor Units

Type of Indoor unit	Specification	22	25	28	32	36	40	45	50	56	63	71	72	80	90	100	112	125	140	160	224	280	450	
High Static Pressure Duct Type Unit										●	●	●		●	●	●	●	●	●	●	●	●		
Low Static Pressure Duct Type Unit										●	●	●	●	●	●	●	●	●	●	●	●	●		
Slim Ducted Type Indoor Unit										●	●	●	●	●	●	●	●	●	●	●	●	●		
4-way Cassette Unit										●	●	●	●	●	●	●	●	●	●	●	●	●		
Compact 4-way Cassette Indoor Unit									●	●	●	●	●	●										
2-way Cassette Indoor Unit									●	●	●	●	●	●	●	●	●	●	●	●	●	●		
1-way Cassette Unit									●	●	●	●	●											
Wall-mounted Type Unit									●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Floor Ceiling Type Indoor Unit									●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Console Indoor Unit									●	●	●	●	●	●										
Floor Standing Type Indoor Unit																								
Fresh Air Processing Indoor Unit																								

## Duct Type Indoor Unit

## High ESP Series



## Low ESP Series



Washable filter



Easier maintainability



High ESP



Auto addressing technology



Slave and master wired controller



Centralized control



Quality motor

## High Static Pressure Duct Type Indoor Unit

50/60 Hz

Capacity	Model		GMV-NDS6PHS/A-T	GMV-ND63PHS/A-T	GMV-ND71PHS/A-T	GMV-ND80PHS/A-T	GMV-ND90PHS/A-T
	Cooling	Heating	kW	5.6	6.3	7.1	8.0
Power supply	V/Ph/Hz			6.3	7.1	8.0	9.0
Power consumption	W		120	120	130	130	200
Airflow volume(H/M/L)	m³/h	1000/800/600	1000/800/600	1100/900/700	1100/900/700	1100/900/700	1700/1450/1100
	CFM	590/471/355	590/471/355	650/530/410	650/530/410	650/530/410	1000/853/650
Rated Current <sup>2</sup>	Cooling	A	0.6	0.6	0.6	0.6	1.0
	Heating	A	0.6	0.6	0.6	0.6	1.0
	Water Heating	A	/	/	/	/	/
ESP	Pa				70/0~100		
Sound pressure level(H/M/L)	dB(A)	44/40/36	44/40/36	45/41/37	45/41/37	46/41/37	46/44/42
Connecting pipe diameter	Liquid	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia.	mm	Φ25	Φ25	Φ25	Φ25	Φ25
	Thickness	mm	2.5	2.5	2.5	2.5	2.5
Dimension	Outline	mm			1271x558x268		
	Package	mm			1348x597x305		
Net weight/Gross weight	kg	35/40	35/40	35/40	35/40	35/40	47/54
Loading	40' GP	set	192	192	192	192	128
	40' HQ	set	216	216	216	216	128

Capacity	Model		GMV-ND100PHS/A-T	GMV-ND112PHS/A-T	GMV-ND125PHS/A-T	GMV-ND140PHS/A-T	GMV-ND160PHS/A-T	GMV-ND224PH/A-T	GMV-ND280PH/A-T	
	Cooling	Heating	kW	10.0	11.2	12.5	14.0	16.0	22.4	28.0
Power supply	V/Ph/Hz		220-240/1/50 & 208-230/1/60					220-240/1/50/60	220-240/1/50 & 208-230/1/60	
Power consumption	W	200	200	220	220	220	220	560	800	900
Airflow volume(H/M/L)	m³/h	1700/1450/1100	1700/1450/1100	2000/1550/1200	2000/1700/1400	3100	4000	4400		
	CFM	1000/853/650	1000/853/650	1175/912/706	1175/1000/824	1824	2355	2590		
Rated Current <sup>2</sup>	Cooling	A	1.0	1.0	1.0	1.0	1.0	4	4.1	4.8
	Heating	A	1.0	1.0	1.0	1.0	1.0	4	4.1	4.6
	Water Heating	A	/	/	/	/	/	/	/	/
ESP	Pa				70/0~100			50	150/50~200	150/50~200
Sound pressure level(H/M/L)	dB(A)	46/44/42	46/44/42	48/45/42	48/46/44	55.0	54.0	55.0		
Connecting pipe diameter	Liquid	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ19	Φ19.05	Φ22.2
Drain pipe	External dia.	mm	Φ25	Φ25	Φ25	Φ25	Φ25	Φ30	Φ30	Φ30
	Thickness	mm	2.5	2.5	2.5	2.5	2.5	1.5	1.5	1.5
Dimension	Outline	mm			1229x775x290			1497x799x389	1483x791x385	1888x870x450
	Package	mm			1338x877x305			1578x883x400	1758x883x470	1788x988x580
Net weight/Gross weight	kg	47/54	47/54	47/54	47/54	79/103	82/104	105/140		
Loading	40' GP	set	128	128	128	128	75	65	52	
	40' HQ	set	128	128	128	128	75	65	52	

## Low Static Pressure Duct Type Indoor Unit

50/60 Hz

Model	GMV-ND22PLS/A-T	GMV-ND25PLS/A-T	GMV-ND28PLS/A-T	GMV-ND32PLS/A-T	GMV-ND36PLS/A-T
Capacity	Cooling kW	2.2	2.5	2.8	3.2
	Heating kW	2.5	2.8	3.6	4.0
Power supply	V/Ph/Hz		220~240/1/50 & 208~230/1/60		
Power consumption	W	35	35	43	43
Airflow volume(H/M/L)	m³/h	450/350/250	450/350/250	450/350/250	550/450/350
	CFM	265/206/147	265/206/147	265/206/147	325/265/206
Rated Current <sup>2</sup>	Cooling A	0.2	0.2	0.2	0.2
	Heating A	0.2	0.2	0.2	0.2
	Water Heating A	/	/	/	/
ESP	Pa		15/0~30		
Sound pressure level(H/M/L)	dB(A)	31/28/25	31/28/25	31/28/25	32/30/27
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
Drain pipe	External dia. mm	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm		700 x 615 x 200		
	Package mm		893x743x305		
Net weight/Gross weight	kg	22/27	22/27	22/27	22/28
Loading	40' GP set	192	192	192	192
	40' HQ set	192	192	192	192

## Slim Ducted Type Indoor Unit

50/60 Hz

Model	GMV-ND22PL/B-T*	GMV-ND25PL/B-T*	GMV-ND28PL/B-T*	GMV-ND32PL/B-T*	GMV-ND36PL/B-T*
Capacity	Cooling kW	2.2	2.5	2.8	3.2
	Heating kW	2.5	2.8	3.6	4.0
Power supply	V/Ph/Hz		220~240/1/50 & 208~230/1/60		
Power consumption	W	25	25	25	30
Airflow volume(H/M/L)	m³/h	450/400/320	450/400/320	450/400/320	550/450/340
	CFM	265/235/188	265/235/188	265/235/188	324/265/200
Rated Current <sup>2</sup>	Cooling A	0.2	0.2	0.2	0.3
	Heating A	0.2	0.2	0.2	0.3
	Water Heating A	/	/	/	/
ESP	Pa		0/15		
Sound pressure level(H/M/L)	dB(A)	30/28/22	30/28/22	30/28/22	31/29/25
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
Drain pipe	External dia. mm	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm			710x450x200	
	Package mm			1003x551x285	
Net weight/Gross weight	kg	18.5/22	18.5/22	18.5/22	19.5/23
Loading	40' GP set	352	352	352	352
	40' HQ set	352	352	352	352

Model	GMV-ND40PLS/A-T	GMV-ND45PLS/A-T	GMV-ND50PLS/A-T	GMV-ND56PLS/A-T	GMV-ND63PLS/A-T
Capacity	Cooling kW	4.0	4.5	5.0	5.6
	Heating kW	4.5	5.0	5.6	6.3
Power supply	V/Ph/Hz		220~240/1/50 & 208~230/1/60		
Power consumption	W	52	52	99	99
Airflow volume(H/M/L)	m³/h	700/600/450	700/600/450	1000/800/600	1000/800/600
	CFM	410/355/265	410/355/265	590/471/355	590/471/355
Rated Current <sup>2</sup>	Cooling A	0.3	0.3	0.3	0.5
	Heating A	0.3	0.3	0.3	0.5
	Water Heating A	/	/	/	/
ESP	Pa		15/0~30		
Sound pressure level(H/M/L)	dB(A)	33/31/28	33/31/28	35/33/30	35/33/30
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ9.52	Φ9.52
	Gas mm	Φ12.7	Φ12.7	Φ15.9	Φ15.9
Drain pipe	External dia. mm	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm	900 x 615 x 200		1100 x 615 x 200	
	Package mm	1123x743x305		1323x743x305	
Net weight/Gross weight	kg	27/33	27/33	27/33	31/38
Loading	40' GP set	192	192	192	162
	40' HQ set	192	192	192	162

Model	GMV-ND40PL/B-T*	GMV-ND45PL/B-T*	GMV-ND50PL/B-T*	GMV-ND56PL/B-T*	GMV-ND63PL/B-T*	GMV-ND72PL/B-T*
Capacity	Cooling kW	4.0	4.5	5.0	5.6	6.3
	Heating kW	4.5	5.0	5.6	6.3	7.0
Power supply	V/Ph/Hz		220~240/1/50 & 208~230/1/60			
Power consumption	W	35	35	45	45	50
Airflow volume(H/M/L)	m³/h	750/660/540	750/660/540	750/660/540	850/700/610	1100/800/640
	CFM	441/388/318	441/388/318	441/388/318	500/412/359	647/471/377
Rated Current <sup>2</sup>	Cooling A	0.3	0.3	0.3	0.3	0.5
	Heating A	0.3	0.3	0.3	0.3	0.5
	Water Heating A	/	/	/	/	/
ESP	Pa		0/15			
Sound pressure level(H/M/L)	dB(A)	33/30/27	33/30/27	33/30/27	35/33/29	37/34/30
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52
	Gas mm	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia. mm	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5
Dimension (WxDxH)	Outline mm			1010x450x200		1310x450x200
	Package mm			1303x551x285		1603x551x285
Net weight/Gross weight	kg	23.5/28	23.5/28	23.5/28	24.5/29	30.5/36
Loading	40' GP set	288	288	288	288	224
	40' HQ set	288	288	288	288	224

Note:

\* This series is without water pump.

Model	GMV-ND71PLS/A-T	GMV-ND80PLS/A-T	GMV-ND90PLS/A-T	GMV-ND100PLS/A-T	GMV-ND112PLS/A-T	GMV-ND125PLS/A-T	GMV-ND140PLS/A-T
Capacity	Cooling kW	7.1	8.0	9.0	10.0	11.2	12.5
	Heating kW	8.0	9.0	10.0	11.2	12.5	14.0
Power supply	V/Ph/Hz		220~240/1/50 & 208~230/1/60				
Power consumption	W	105	140	209	209	230	230
Airflow volume(H/M/L)	m³/h	1000/800/600	1100/1000/800	1500/1250/950	1500/1350/1000	1700/1500/1100	2000/1500/1150
	CFM	590/471/355	650/590/471	885/736/599	885/736/599	1000/885/650	1175/885/677
Rated Current <sup>2</sup>	Cooling A	0.5	0.7	1.0	1.0	1.1	1.1
	Heating A	0.5	0.7	1.0	1.0	1.1	1.1
	Water Heating A	/	/	/	/	/	/
ESP	Pa		30/0~50				
Sound pressure level(H/M/L)	dB(A)	35/33/30	36/34/31	40/36/32	40/36/32	42/40/	

## Cassette Type Indoor Unit

The cooling capacity of the cassette type units ranges from 2.2~16.0 kW, which can be widely applied in hotels, office buildings, apartments and villas, etc.



- Built-in drain pump
- Washable filter
- Quiet function
- Easier maintainability
- Auto addressing technology
- Quality motor
- Slave and master wired controller
- Centralized control
- Horizontal swing

### 4-way Cassette Indoor Unit

50/60 Hz

Model		GMV-ND28T/A-T	GMV-ND36T/A-T	GMV-ND45T/A-T	GMV-ND50T/A-T	GMV-ND56T/A-T	GMV-ND63T/A-T	GMV-ND71T/A-T
Capacity	Cooling kW	2.8	3.6	4.5	5.0	5.6	6.3	7.1
	Heating kW	3.2	4.0	5.0	5.6	6.3	7.1	8.0
Power supply	V/Ph/Hz				220~240/1/50 & 208~230/1/60			
Power consumption	W	48	48	48	50	59	59	68
Airflow volume(H/M/L)	m³/h	750/650/550	750/650/550	750/650/550	830/650/550	1000/900/750	1000/900/750	1180/950/850
	CFM	440/383/325	440/383/325	440/383/325	490/383/325	590/530/440	590/530/440	695/559/550
Rated Current <sup>2</sup>	Cooling A	0.2	0.2	0.2	0.2	0.3	0.3	0.3
	Heating A	0.2	0.2	0.2	0.2	0.3	0.3	0.3
	Water Heating A	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	36/34/31	36/34/31	36/34/31	36/34/31	37/35/32	37/35/32	38/36/33
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52
	Gas mm	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia. mm	25	25	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Main Body	Dimension (WxDxH) Outline	840x840x190	840x840x190	840x840x190	840x840x190	840x840x240	840x840x240	840x840x240
	Package	963x963x272	963x963x272	963x963x272	963x963x272	963x963x325	963x963x325	963x963x325
	Net weight/Gross weight kg	22.5/29.5	22.5/29.5	22.5/29.5	22.5/29.5	26.5/34.5	26.5/34.5	26.5/34.5
Panel	Dimension (WxDxH) Outline	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65
	Package	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133
	Net weight/Gross weight kg	7/11	7/11	7/11	7/11	7/11	7/11	7/11
Loading quantity	40GP set	167	167	167	167	140	140	140
	40HQ set	171	171	171	171	156	156	156

Model		GMV-ND80T/A-T	GMV-ND90T/A-T	GMV-ND100T/A-T	GMV-ND112T/A-T	GMV-ND125T/A-T	GMV-ND140T/A-T	GMV-ND160T/A-T
Capacity	Cooling kW	8.0	9.0	10.0	11.2	12.5	14.0	16.0
	Heating kW	9.0	10.0	11.2	12.5	14.0	16.0	17.5
Power supply	V/Ph/Hz				220~240/1/50 & 208~230/1/60			
Power consumption	W	68	98	98	110	110	110	130
Airflow volume(H/M/L)	m³/h	1180/950/850	1500/1350/1100	1500/1350/1100	1700/1400/1100	1860/1500/1150	1860/1500/1150	2100/1700/1400
	CFM	696/559/550	860/705/650	880/795/650	1000/824/650	1095/880/677	1095/880/677	1235/1000/824
Rated Current <sup>2</sup>	Cooling A	0.3	0.4	0.4	0.5	0.5	0.6	0.6
	Heating A	0.3	0.4	0.4	0.5	0.5	0.6	0.6
	Water Heating A	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	38/36/33	40/37/35	40/37/35	41/38/36	43/41/38	43/41/38	47/44/42
Connecting pipe diameter	Liquid mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ19.05
Drain pipe	External dia. mm	25	25	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Main Body	Dimension (WxDxH) Outline	840x840x240	840x840x320	840x840x320	840x840x320	840x840x320	910x910x293	
	Package	963x963x325	963x963x409	963x963x409	963x963x409	963x963x409	1023x993x375	
	Net weight/Gross weight kg	26.5/34.5	32.5/40.0	32.5/40.0	32.5/40.0	32.5/40.0	46.5/56.5	
Panel	Dimension (WxDxH) Outline	950x950x65	950x950x65	950x950x65	950x950x65	950x950x65	1040x1040x65	
	Package	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1033x1038x133	1137x1137x140	
	Net weight/Gross weight kg	7/11	7/11	7/11	7/11	7/11	7.5/11.5	
Loading quantity	40GP set	140	104	104	104	104	144	
	40HQ set	156	119	119	119	119	144	

### Compact 4-way Cassette Indoor Unit

50/60 Hz

Model		GMV-ND22T/B-T	GMV-ND28T/B-T	GMV-ND36T/B-T	GMV-ND45T/B-T	GMV-ND50T/B-T	GMV-ND60T/B-T
Capacity	Cooling kW	2.2	2.8	3.6	4.5	5.0	5.6
	Heating kW	2.5	3.2	4	5	5.6	6.3
Power supply	V/Ph/Hz			220~240/1/50 & 208~230/1/60			
Power consumption	W	35	35	35	45	45	45
Airflow volume(H/M/L)	m³/h	600/500/400	600/500/400	600/500/400	700/600/480	700/600/480	700/600/480
	CFM	355/295/235	355/295/235	355/295/235	410/355/283	410/355/283	410/355/283
Rated Current <sup>2</sup>	Cooling A	0.4	0.4	0.4	0.5	0.5	0.5
	Heating A	0.4	0.4	0.4	0.5	0.5	0.5
	Water Heating A	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	41/39/35	41/39/35	41/39/35	45/43/38	45/43/38	45/43/38
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas mm	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7
Drain pipe	External dia. mm	25	25	25	25	25	25
	Thickness mm	2.5	2.5	2.5	2.5	2.5	2.5
Main Body	Dimension (WxDxH) Outline	596x596x240	596x596x240	596x596x240	596x596x240	596x596x240	596x596x240
	Package	773x733x300	773x733x300	773x733x300	773x733x300	773x733x300	773x733x300
	Net weight/Gross weight kg	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5
Panel	Dimension (WxDxH) Outline	870x670x50	870x670x50	870x670x50	870x670x50	870x670x50	870x670x50
	Package	763x763x105	763x763x105	763x763x105	763x763x105	763x763x105	763x763x105
	Net weight/Gross weight kg	3.5/5.0	3.5/5.0				

## Wall-mounted Type Indoor Unit

The cooling capacity of wall-mounted type indoor unit ranges from 2.2kW~7.1kW, which can be widely adopted in hotels, restaurants, office, etc.



- Washable filter
- Auto clean
- Vertical swing
- Anti-cold function
- Quiet function
- Compact design
- Easier maintainability

### 50 Hz

Model		GMV-H220/A3A-K*	GMV-H280/A3A-K*	GMV-N38G/A3A-K*	GMV-N45G/A3A-K*	GMV-N50G/A3A-K*	GMV-N56G/A3A-K*	GMV-N63G/A3A-K*	GMV-N71G/A3A-K*
Capacity	Cooling kW	2.2	2.8	3.6	4.5	5.0	5.8	6.3	7.1
	Heating kW	2.5	3.2	4.0	5.0	5.8	6.3	7.0	7.5
Power supply	V/Ph/Hz								
Power consumption	W	60	50	60	60	70	70	70	70
Airflow volume(H/M/L)	m³/h	500/420/350	500/420/350	630/550/480	630/550/480	750/600/500	750/600/500	750/600/500	750/600/500
	CFM	294/247/206	294/247/206	371/324/282	371/324/282	441/353/294	441/353/294	441/353/294	441/353/294
Rated Current*	Cooling A	0.2	0.2	0.31	0.31	0.31	0.31	0.31	0.31
	Heating A	0.2	0.2	0.31	0.31	0.31	0.31	0.31	0.31
	Water Heating A	/	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	38/34/30	38/34/30	44/41/36	44/41/36	44/41/36	44/41/36	44/41/36	44/41/36
Connecting pipe diameter	Liquid mm	Φ6.35							
	Gas mm	Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia. mm	Φ20	Φ20	Φ20	Φ20	Φ30	Φ30	Φ30	Φ30
	Thickness mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Dimension (WxDxH)	Outline mm	843x180x275		940x200x298		1008x221x319			
	Package mm	970x258x355		1065x285x380		1128x395x313			
Net weight/Gross weight	kg	10/12.5	10/12.5	12.5/15.5	12.5/15.5	12.5/15.5	15/18.5	15/18.5	15/18.5
Loading	40' GP set	702	702	557	557	441	441	441	441
	40' HQ set	819	819	624	624	503	503	503	503

Note:  
\* This series is without water pump.

## Floor Ceiling Type Indoor Unit



- Washable filter
- Quiet function
- Vertical swing
- Horizontal swing
- Compact design
- Easier maintainability

### 50/60 Hz

Model	GMV-ND28ZD/A-T	GMV-ND36ZD/A-T	GMV-ND50ZD/A-T	GMV-ND63ZD/A-T	GMV-ND71ZD/A-T	GMV-ND80ZD/A-T	GMV-ND112ZD/A-T	GMV-ND125ZD/A-T	GMV-ND140ZD/A-T
Capacity	Cooling kW	2.8	3.6	5.0	6.3	7.1	9.0	11.2	12.5
	Heating kW	3.2	4.0	5.6	7.1	8.0	10.0	12.5	14.0
Power supply	V/Ph/Hz				220~240/1/50 & 208~230/1/60				
Power consumption	W	40	40	50	75	75	140	160	160
Airflow volume(H/M/L)	m³/h	650/580/500	650/580/500	950/850/700	1400/1150/1000	1400/1150/1000	1600/1400/1200	2000/1600/1450	2000/1800/1450
	CFM	380/341/294	380/341/294	560/500/410	825/677/590	825/677/590	940/824/706	1175/1059/853	1175/1059/853
Rated Current*	Cooling A	0.2	0.2	0.25	0.38	0.38	0.7	0.95	0.95
	Heating A	0.2	0.2	0.25	0.38	0.38	0.7	0.95	0.95
	Water Heating A	/	/	/	/	/	/	/	/
Sound pressure level(H/M/L)	dB(A)	36/34/32	36/34/32	42/38/33	44/42/39	44/42/39	50/47/43	51/47/42	52/49/45
Connecting pipe diameter	Liquid mm	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas mm	Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9	Φ15.9
Drain pipe	External dia. mm	Φ17	Φ17	Φ17	Φ17	Φ17	Φ17	Φ17	Φ17
	Thickness mm	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Dimension (WxDxH)	Outline mm	1220x700x225				1420x700x245			
	Package mm	1343x823x315				1548x828x315			
Net weight/Gross weight	kg	40/49	40/49	40/49	50/58	50/58	50/58	60/68	60/68
Loading	40' GP set	145	145	145	90	90	90	84	84
	40' HQ set	158	158	158	98	98	98	98	98

## Console Indoor Unit

The cooling capacity of console indoor unit ranges from 2.2kW~5.0kW, which can be widely adopted in hotels, restaurants, office, etc.



- Vertical swing
- Anti-cold function
- Self-diagnosis
- Quiet function
- Comprehensive protection
- Auto Restart
- Compact design
- Easier maintainability

### 50/60 Hz

Model	GMV-ND22C/A-T	GMV-ND28C/A-T	GMV-ND36C/A-T	GMV-ND45C/A-T	GMV-ND50C/A-T
Capacity	Cooling kW	2.2	2.8	3.6	4.5
	Heating kW	2.5	3.2	4.0	5.0
Power supply	V/Ph/Hz			220~240/1/50Hz & 208~230/1/60 Hz	
Power consumption	W	15	15	20	40
Airflow volume(H/M/L)	m³/h	430~400/320/270	430~400/320/270	570~480/400/300	280~680/600/500
	CFM	253~235/188/159	253~235/188/159	335~282/235/188	460~400/353/294
Rated Current*	Cooling A	0.15	0.15	0.15	0.15
	Heating A	0.15	0.15	0.15	0.15
	Water Heating A	/	/	/	/
ESP	Pa	0	0	0	0
Sound pressure level(H/M/L)	dB(A)	38/33/27	38/33/27	40/37/32	46/43/39
Connecting pipe diameter	Liquid mm	6.35	6.35	6.35	6.35
	Gas mm	9.52	9.52	9.52	9.52
Drain pipe	External dia. mm	17.2	17.2	17.2	17.2
	Thickness mm	1	1	1	1
Dimension (WxDxH)	Outline mm	700/215/600	700/215/600	700/215/600	700/215/600
	Package mm	788/283/697	788/283/697	788/283/697	788/283/697
Net weight/Gross weight	kg	16/19	16/19	16/19	16/19
Loading	40' GP set	387	387	387	387
	40' HQ set	433	433	433	433

## Floor Standing Type Indoor Unit

The cooling capacity of floor standing type indoor unit ranges from 10kW~14kW, which can be widely adopted in hotels, restaurants, office, etc.



50/60 Hz

Model	GMV-ND100LJA-T	GMV-ND140LJA-T
Capacity	Cooling kW Heating kW	10 11
Power supply	V/Ph/Hz	220-240/1/50 & 208-230/1/60 Hz
Power consumption	W	185 185
Airflow volume(H/M/L)	m³/h CFM	1850/1600/1400 1089/942/824
Rated Current <sup>2</sup>	Cooling A Heating A Water Heating A	1.5 1.5 /
ESP	Pa	0 0
Sound pressure level(H/M/L)	dB(A)	50/46/46 50/46/46
Connecting pipe diameter	Liquid mm Gas mm	9 16
Drain pipe	External dia. mm Thickness mm	31 4.5
Dimension (WxDxH)	Outline mm Package mm	1870x580x400 2083/738/545
Net weight/Gross weight	kg	54/74 57/78
Loading	40' GP set 40' HQ set	67 67

- Quiet function
- Horizontal swing
- Vertical swing
- Easier maintainability
- Self-diagnosis
- Memory Function
- Anti-cold function
- Turbo function

## Fresh Air Processing Indoor Unit

Fresh air processing indoor unit is widely adopted in villas, high-end communities, business places and public places. It introduces outdoor fresh air into the room to improve the air quality without fluctuation of indoor temperature, which belongs to the most advanced and comfortable VRF air conditioning technology.



- Fresh air supply ventilation
- Energy saving function
- Compact design

50 Hz

Model	GMV-NX140P/A(X1.2)-K <sup>*</sup>	GMV-NX224P/A(X2.0)-M <sup>*</sup>	GMV-NX280P/A(X2.5)-M <sup>*</sup>	GMV-NX280P/A(X3.0)-M <sup>*</sup>	GMV-NX450P/A(X4.0)-M <sup>*</sup>
Capacity	Cooling kW Heating kW	14.0 10.0	22.4 16.0	28.0 20.0	28.0 20.0
Power supply	V/Ph/Hz	220-240/1/50			380-415/3/50
Power consumption	W	380	740	780	1080
Airflow volume(H/M/L)	m³/h CFM	1200 705	2000 1175	2500 1470	3000 1785
Rated Current <sup>2</sup>	Cooling A Heating A	1.82 1.82	1.32 1.32	1.36 1.36	1.89 1.89
Water Heating	A	/	/	/	/
ESP	Pa	150	200		
Sound pressure level(H/M/L)	dB(A)	42	47	48	51
Connecting pipe diameter	Liquid mm Gas mm	Φ9.52 Φ15.9	Φ9.52 Φ19.05	Φ9.52 Φ22.2	Φ12.7 Φ28.6
Drain pipe	External dia. mm Thickness mm	25 2.5	25 2.5	25 2.5	25 2.5
Dimension	Outline (WxDxH) mm	1463 x 756 x 300		1500 x 1000 x 500	1700 x 1100 x 650
	Package mm	1514x785x360		1840x1200x673	1890x1460x835
Net weight/Gross weight	kg	63.5/71	130/182	134/188	134/188
Loading	40' GP set 40' HQ set	84.0 98.0	18.0 18.0	18.0 18.0	16.0 16.0

Note: \* This series can be matched with GMV5(Top discharge outdoor unit)only.

## Control System Lineup

Controlling system	Product series	Cassette Type	(High ESP, Low ESP, Slim Ducted) Duct Type	Fresh Air Processing	Wall mounted Type	Floor Ceiling Type	Console Type	Floor Standing Type
Wireless Controller	YAP1F							
	YV1L1							
Wired controller	XX46							
	XX49							
	XK55							
	JS05(receiver)							
Centralized Controller	CE52-24/F(C)							
	CE53-24/F(C)							
Long-distance monitoring software	FE31-00/AD(BM)							
BMS Accessories	ME30-24/E4(M)							
	GMV BACnet gateway (BACnet)							
Other modules	Optoelectronic isolated converter	RS232-RS422/485						
	Optoelectronic isolated signal multiplexer	RS-422/485						

Note: means standard, means optional.

# GMV HR-II

(Heat recovery series)

It is a kind of VRF system that adopt DC inverter compressor and the outdoor unit could be connected with several indoor units to realize independent cooling or heating control in different rooms.



- Advanced control functions.
  - DC inverter scroll compressor.
  - ECO-friendly R410A refrigerant.
- Better reliability.
- Compact outdoor unit.
- Greatly improved energy efficiency:  
Significantly greater efficiency is realized by the use of DC inverter hermetic scroll compressors with high pressure chamber design, improved DC inverter driving technology and large heat exchanger.
- Modular outdoor unit design:  
Various combination form 8HP to 64HP with 2HP increments.  
Max. capacity of outdoor units is 180kW (4 modules combination).
- Various combinations:  
4 types and 56 models of indoor unit.  
Max. diversity is 135%.

Max. piping length (meter)	
Total piping length	500m
Actual piping length	150m
Equivalent piping length	175m
Height difference between indoor units	15m
Height difference between outdoor unit and indoor unit (outdoor unit is located above the indoor unit)	50m
Height difference between indoor unit and outdoor unit (outdoor unit is located underneath the indoor unit)	40m
Piping length from first indoor branch to the farthest indoor unit	40m

INVERTER R410A

## Outdoor Units Lineup—Heat Recovery Series

MODEL	GMV-Pdhm224W/Na-M (8HP)	GMV-Pdhm260W/Na-M (10HP)	GMV-Pdhm335W/Na-M (12HP)	GMV-Pdhm400W/Na-M (14HP)	GMV-Pdhm450W/Na-M (16HP)
	GMV-Pdhm224W/Na-M (8HP)				
	GMV-Pdhm280W/Na-M (10HP)				
	GMV-Pdhm335W/Na-M (12HP)				
	GMV-Pdhm400W/Na-M (14HP)				
	GMV-Pdhm450W/Na-M (16HP)				
	GMV-Pdhm504W2/Na-M (18HP)				
	GMV-Pdhm560W2/Na-M (20HP)				
	GMV-Pdhm615W2/Na-M (22HP)				
	GMV-Pdhm680W2/Na-M (24HP)				
	GMV-Pdhm730W2/Na-M (26HP)				
	GMV-Pdhm800W2/Na-M (28HP)				
	GMV-Pdhm850W2/Na-M (30HP)				
	GMV-Pdhm900W2/Na-M (32HP)				
	GMV-Pdhm960W3/Na-M (34HP)				
	GMV-Pdhm1010W3/Na-M (36HP)				
	GMV-Pdhm1070W3/Na-M (38HP)				
	GMV-Pdhm1130W3/Na-M (40HP)				
	GMV-Pdhm1180W3/Na-M (42HP)				
	GMV-Pdhm1250W3/Na-M (44HP)				
	GMV-Pdm1300W3/Na-M (46HP)				
	GMV-Pdhm1350W3/Na-M (48HP)				
	GMV-Pdhm1410W4/Na-M (50HP)				
	GMV-Pdhm1460W4/Na-M (52HP)				
	GMV-Pdhm1515W4/Na-M (54HP)				
	GMV-Pdhm1580W4/Na-M (56HP)				
	GMV-Pdhm1630W4/Na-M (58HP)				
	GMV-Pdhm1700W4/Na-M (60HP)				
	GMV-Pdhm1750W4/Na-M (62HP)				
	GMV-Pdhm1800W4/Na-M (64HP)				

## GMV HR-II (Heat Recovery Series)

Item	Nominal operating condition (temperature)			Operating range (temperature)		
	Outdoor condition		Indoor condition	Outdoor condition		
	DB(°C)	WB(°C)	DB(°C)	WB(°C)	DB(°C)	
Cooling	35	24	27	19	-10~48	
Heating	7	6	20	15	-20~27	
Cooling and Heating					-10~20	

Model	Heat pump	GMV-Pdhn224W/Na-M	GMV-Pdhn280W/Na-M	GMV-Pdhn335W/Na-M	GMV-Pdhn400W/Na-M	GMV-Pdhn450W/Na-M
Capacity	Cooling	kW	22.4	28.0	33.5	40.0
	Heating	kW	25.0	31.5	37.5	45.0
EER		WW	3.73	3.73	3.63	3.21
COP		WW	4.09	4.09	4.00	3.60
ECOP	Cooling&heating	W/W	6.80	6.80	6.50	6.50
Power supply		Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	5.50	7.5	9.23	12.4
	Heating	kW	5.80	7.7	9.38	11.2
Refrigerant charge volume		kg	12.0	12.0	14.0	16.0
Compressor configuration*		—	DC×1+F×1	DC×1+F×1	DC×1+F×2	DC×1+F×2
Sound pressure level		dB(A)	58	58	61	61
Dimension (W×D×H)	Outline	mm	930×770×1670	930×770×1670	1340×770×1670	1340×770×1670
	Package	mm	1013×853×1885	1013×853×1885	1423×853×1885	1423×853×1885
Net weight/Gross weight		kg	266/282	266/282	372/390	387/413
Connecting pipe diameter	Gas(High pressure)	inch(mm)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ7/8(22.2)
	Gas(Low pressure)	inch(mm)	φ7/8(22.2)	φ7/8(22.2)	φ9/8(28.6)	φ9/8(28.6)
	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)
	Oil balance	inch(mm)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)
Max. equivalent connection pipe length	m		175	175	175	175
Maximum drive IDU NO.		unit	16	16	19	23
Loading quantity	40GP	set	28	28	22	22
	40HQ	set	38	38	27	27

DC: DC inverter scroll compressor F: Fixed frequency scroll compressor

## Indoor Units Lineup



## Duct Type Indoor Unit



Built-in drain pump

Fresh air supply ventilation<sup>†</sup>

Quiet function

Multi fan speed<sup>‡</sup>

Compact design



Easier maintainability



Key-card control

<sup>†</sup> For the unit between 8.0kW to 14kW. <sup>‡</sup> For the unit below 15kW.

## High ESP Type

Model	with drain water pump		GMV-Rh22PS/NaB-K	GMV-Rh28PS/NaB-K	GMV-Rh36PS/NaB-K	GMV-Rh45PS/NaB-K	GMV-Rh56PS/NaB-K
	without drain water pump	GMV-Rh22P/NaB-K	GMV-Rh28P/NaB-K	GMV-Rh36P/NaB-K	GMV-Rh45P/NaB-K	GMV-Rh56P/NaB-K	
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.5	3.2	4.0	5.0	6.3
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input	without drain water pump	W	85/75	90/80	90/80	150/140	240
Air flow volume		m³/h	450	570	570	700	1000
	CFM	CFM	265	335	335	412	589
Standard ESP		Pa	20/50	20/50	20/50	20/50	30/60
Sound pressure level		dB(A)	37/35/33	39/37/35	39/37/35	40/38/36	44/42/40
Dimension (W×D×H)	Outline	mm	880×665×250	880×665×250	880×721×266	980×721×266	1155×736×300
	Package	mm	1148×748×320	1148×748×320	1148×748×320	1293×798×323	1418×788×375
Net weight/ Gross weight	with DWP*	kg	26/37	28/38	28/39	34/46	49/63
	without DWP*	kg	25/36	27/38	27/38	33/45	48/62
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)
	Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)
Loading quantity	40GP	set	180	180	180	108	96
	40HQ	set	180	180	180	108	96

Model	with drain water pump		GMV-Rh71PS/NaB-K	GMV-Rh90PS/NaB-K	GMV-Rh112PS/NaB-K	GMV-Rh140PS/NaB-K	GMV-Rh224P/NaB-M	GMV-Rh280P/NaB-M
	without drain water pump	GMV-Rh71P/NaB-K	GMV-Rh90P/NaB-K	GMV-Rh112P/NaB-K	GMV-Rh140P/NaB-K	GMV-Rh224P/NaB-M	GMV-Rh280P/NaB-M	
Capacity	Cooling	kW	7.1	9.0	11.2	14.0	22.4	28.0
	Heating	kW	8.0	10.0	12.5	15.0	25.0	31.0
Power supply		Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	3/380-415/50	3/380-415/50
Motor power input		W	240	360	360	500	1600	4800
Air flow volume		m³/h	1100	1700	1700	2000	4000	2825
	CFM	CFM	647	1000	1000	1177	2354	

## Normal ESP Type

Model		GMV-Rh22P/Na-K	GMV-Rh25P/Na-K	GMV-Rh28P/Na-K	GMV-Rh32P/Na-K	GMV-Rh36P/Na-K	GMV-Rh40P/Na-K		
Capacity	Cooling	kW	2.2	2.5	2.8	3.2	3.6	4.0	
	Heating	kW	2.5	3.0	3.2	3.6	4.0	4.5	
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	
Motor power input	W	54	54	55	55	55	55	55	
Air flow volume	m³/h	450	450	570	570	570	700	700	
CFM	CFM	265	265	335	335	335	412	412	
ESP	Pa	10	10	10	10	10	20	20	
Sound pressure level	dB(A)	37/33	37/33	39/35	39/35	39/35	40/36	40/36	
Dimension (W×D×H)	Outline	kg	875×680×220	875×680×220	875×680×220	875×680×220	980×736×266		
Package	kg	1168×713×290	1168×713×290	1168×713×290	1168×713×290	1168×713×290	1223×779×335		
Net weight/Gross weight	kg	27/31	27/31	27/31	27/31	27/31	36/39		
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)		
Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)			
Loading quantity	40'GP	set	180	180	180	180	180	108	
40'HQ	set	180	180	180	180	180	108		

Model		GMV-Rh45P/Na-K	GMV-Rh50P/Na-K	GMV-Rh56P/Na-K	GMV-Rh63P/Na-K	GMV-Rh71P/Na-K	GMV-Rh80P/Na-K		
Capacity	Cooling	kW	4.5	5.0	5.6	6.3	7.1	8.0	
	Heating	kW	5.0	5.8	6.3	7.0	8.0	8.8	
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	
Motor power input	W	91	91	157	157	157	157		
Air flow volume	m³/h	700	700	1000	1000	1100	1100		
CFM	CFM	412	412	589	589	647	647		
ESP	Pa	20	20	25	25	25	25		
Sound pressure level	dB(A)	40/36	40/36	41/37	41/37	42/38	42/38		
Dimension (W×D×H)	Outline	kg	980×736×266	980×736×266	1159×736×260	1159×736×260	1159×736×260		
Package	kg	1223×779×335	1223×779×335	1401×788×335	1401×788×335	1401×788×335			
Net weight/Gross weight	kg	36/39	36/39	37/41	37/41	37/41	37/41		
Connecting pipe diameter	Gas	inch(mm)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)		
Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)			
Loading quantity	40'GP	set	108	108	96	96	96		
40'HQ	set	108	108	96	96	96	96		

Model		GMV-Rh90P/Na-K	GMV-Rh100P/Na-K	GMV-Rh112P/Na-K	GMV-Rh125P/Na-K	
Capacity	Cooling	kW	9.0	10.0	11.2	12.5
	Heating	kW	10.0	11.0	12.5	13.5
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	
Motor power input	W	270	270	270	270	
Air flow volume	m³/h	1700	1700	1700	1700	
CFM	CFM	1000	1000	1000	1000	
ESP	Pa	30	30	30	30	
Sound pressure level	dB(A)	44/40	44/40	44/40	44/40	
Dimension (W×D×H)	Outline	kg	1385×736×260	1385×736×260	1385×736×260	1385×736×260
Package	kg	1685×799×325	1685×799×325	1685×799×325	1685×799×325	
Net weight/Gross weight	kg	49/60	49/60	49/60	49/60	
Connecting pipe diameter	Gas	inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)
Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	
Loading quantity	40'GP	set	90	90	90	90
40'HQ	set	90	90	90	90	

## Cassette Type Indoor Unit



Easier maintainability

## 4-way Cassette

Model		GMV-Rh28T/Na-K	GMV-Rh36T/Na-K	GMV-Rh45T/Na-K	GMV-Rh50T/Na-K	GMV-Rh55T/Na-K	GMV-Rh63T/Na-K	
Capacity	Cooling	kW	2.8	3.6	4.5	5.0	5.6	6.3
	Heating	kW	3.2	4.0	5.0	5.8	6.3	7.0
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Motor power input	W	65	65	65	65	65	83	83
Air flow volume	CFM	400	400	400	400	400	694	694
Sound pressure level	dB(A)	37/35/33	37/35/33	37/35/33	37/35/33	37/35/33	39/37/35	39/37/35
Main body	Dimension (W×D×H)	mm	840×840×190	840×840×190	840×840×190	840×840×190	840×840×240	840×840×240
	Package	mm	1103×963×272	1103×963×272	1103×963×272	1103×963×272	1103×963×325	1103×963×325
Panel	Dimension (W×D×H)	mm	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60	950×950×60
	Package	mm	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130	1043×1028×130
Net weight/Gross weight	kg	25/33	25/33	25/33	25/33	25/33	30/38	30/38
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ5/8(15.9)	φ5/8(15.9)
Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40'GP	set	112	112	112	112	100	100
40'HQ	set	124	124	124	124	124	114	114

Model		GMV-Rh71T/Na-K	GMV-Rh8

## Wall Mounted Type Indoor Unit



- Washable filter
- Auto clean
- Vertical swing
- Anti-cold function
- Quiet function
- Compact design
- Easier maintainability

Model		GMV-Rh22G/Na-K	GMV-Rh26G/Na-K	GMV-Rh36G/Na-K	GMV-Rh45G/Na-K
Capacity	Cooling	kW	2.2	2.8	3.6
	Heating	kW	2.5	3.2	4
Power supply	Ph/V/Hz		1/220-240/50	1/220-240/50	1/220-240/50
Motor power input		W	32	32	48
Air flow volume		m³/h	360	360	500
		CFM	212	212	294
Sound pressure level		dB(A)	37/28	37/28	43/32
Dimension (W×D×H)	Outline	mm	770×190×250	770×190×250	830×189×285
	Package	mm	863×287×481	863×287×481	908×280×536
Net weight/Gross weight		kg	8.5/15.6	8.5/15.6	11/18.5
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)
Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)
Loading quantity	40'GP	set	520	520	440
	40'HQ	set	570	570	440

Model		GMV-Rh50G/Na-K	GMV-Rh56G/Na-K	GMV-Rh71G/Na-K
Capacity	Cooling	kW	5	5.6
	Heating	kW	5.8	6.3
Power supply	Ph/V/Hz		1/220-240/50	1/220-240/50
Motor power input		W	56	58
Air flow volume		m³/h	700	750
		CFM	412	441
Sound pressure level		dB(A)	45/40	45/40
Dimension (W×D×H)	Outline	mm	1020×228×310	1020×228×310
	Package	mm	1083×405×423	1083×405×423
Net weight/Gross weight		kg	14.7/23.6	14.7/23.6
Connecting pipe diameter	Gas	inch(mm)	φ1/2(12.7)	φ5/8(15.9)
Liquid	inch(mm)	φ1/4(6.32)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40'GP	set	315	315
	40'HQ	set	378	378

## Floor Ceiling Type Indoor Unit



- Built-in drain pump
- Washable filter
- Quiet function
- Vertical swing
- Vertical swing
- Compact design
- Easier maintainability

Model		GMV-Rh28Zd/Na-K	GMV-Rh36Zd/Na-K	GMV-Rh50Zd/Na-K	GMV-Rh71Zd/Na-K
Capacity	Cooling	kW	2.8	3.6	5.0
	Heating	kW	3.2	4.0	5.8
Power supply	Ph/V/Hz		1/220-240/50	1/220-240/50	1/220-240/50
Motor power input		W	10	10	40
Air flow volume		m³/h	550	600	700
		CFM	324	353	412
Sound pressure level		dB(A)	43	44	50
Dimension (W×D×H)	Outline	mm	840×695×238	840×695×238	840×695×238
	Package	mm	1098×808×310	1098×808×315	1098×808×315
Net weight/Gross weight		kg	28/37	28/37	34/38
Connecting pipe diameter	Gas	inch(mm)	φ3/8(9.52)	φ1/2(12.7)	φ1/2(12.7)
Liquid	inch(mm)	φ1/4(6.32)	φ1/4(6.32)	φ1/4(6.32)	φ3/8(9.52)
Loading quantity	40'GP	set	120	120	120
	40'HQ	set	120	120	120

Model		GMV-Rh90Zd/Na-K	GMV-Rh112Zd/Na-K	GMV-Rh125Zd/Na-K
Capacity	Cooling	kW	9.0	11.2
	Heating	kW	10.0	12.5
Power supply	Ph/V/Hz		1/220-240/50	1/220-240/50
Motor power input		W	150	180
Air flow volume		m³/h	2100	2200
		CFM	1236	1295
Sound pressure level		dB(A)	51	54
Dimension (W×D×H)	Outline	mm	1590×695×238	1590×695×238
	Package	mm	1873×833×345	1873×833×345
Net weight/Gross weight		kg	44/53	/
Connecting pipe diameter	Gas	inch(mm)	φ5/8(15.9)	φ5/8(15.9)
Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
Loading quantity	40'GP	set	72	72
	40'HQ	set	72	72

## Branching Joint

### For Indoor Units

Indoor model	Indoor unit total capacity X (kW)	Appearance		
		High-pressure gas pipe	Low-pressure gas pipe	Liquid pipe
FQ01Na/A	X≤5.6			
FQ02Na/A	5.6 < X ≤ 22			
FQ03Na/A	22 < X ≤ 30			
FQ04Na/A	30 < X ≤ 68			
FQ05Na/A	68 < X ≤ 96			
FQ06Na/A	96 < X ≤ 135			
FQ07Na/A	135 < X			

### For Outdoor Units

Model	Indoor unit total capacity X (kW)	Appearance		
		High-pressure gas pipe	Low-pressure gas pipe	Liquid pipe
ML01R	22.4 ≤ X ≤ 96			
ML02R	96 < X			

## Fresh Air Series

It is a kind of VRF system that adopt DC inverter compressor and the outdoor unit could be connected with several 100% fresh air inlet ducted type indoor units to realize independent cooling (heating) control in different rooms.



- Inner groove copper
- Washable filter
- High efficiency
- Intelligent defrosting
- Precise temperature control
- Quiet function
- Self-diagnosis
- Comprehensive protection
- Compact design
- Easier maintainability
- Centralized control
- Long-distance monitoring



Item	Nominal operating condition (temperature)				Operation range (temperature) Outdoor condition DB(°C)
	Outdoor condition DB(°C)	WB(°C)	Indoor condition DB(°C)	WB(°C)	
Cooling	35	24	27	19	20/15~43/35
Heating	7	6	20	15	-7/-8/14/11

### Outdoor Unit

Model	Heat pump	GMV-Pdm224W/NaX-M	GMV-Pdm280W/NaX-M	GMV-Pdm450W/NaX-M
Capacity	Cooling kW	22.4	28.0	45.0
	Heating kW	16.0	20.0	32.0
EER/COP	Cooling/Heating W/W	2.24/1.88	2.67/2.22	3.10/2.37
Power supply	Ph/V/f/Hz	3/380~415/50	3/380~415/50	3/380~415/50
Power input	Cooling kW	10.0	10.5	14.5
	Heating kW	8.5	9.0	13.5
Refrigerant charge volume	kg	15.5	15.5	17
Compressor configuration*	—	DC×1+F×1	DC×1+F×1	DC×1+F×2
Sound pressure level	dB(A)	58	58	61
Dimension (W×D×H)	Outline mm	930×770×1670	930×770×1670	1340×770×1670
	Package mm	1013×853×1865	1013×853×1865	1423×853×1865
Net weight/Gross weight	kg	255/275	255/275	370/400
Connecting pipe diameter	Gas inch(mm)	φ7/8(22.2)	φ7/8(22.2)	φ9/8(28.6)
	Liquid inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ1/2(12.7)
	Oil balance inch(mm)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)
Max. equivalent connection pipe length	m	70	70	70
Maximum drive IDU NO.	unit	14	16	16
Loading quantity	40'GP set	24	24	16
	40'HQ set	24	24	16

DC: DC inverter scroll compressor F: Fixed frequency Scroll compressor

## Indoor Unit

Model	Heat pump	GMV-R140P/Na(X1.2)-K	GMV-R224P/Na(X2.0)-M	GMV-R280P/Na(X2.5)-M	GMV-R280P/Na(X3.0)-M
Capacity	Cooling Heating	kW kW	14.0 10.0	22.4 16.0	28.0 20.0
Power supply	Ph/V/Hz	1/220-240/50	3/380-415/50	3/380-415/50	3/380-415/50
Motor power input	W	500	1100	1100	1100
Air flow volume	Cooling Heating	m³/h CFM	1200 706	2000 1177	2500 1471
ESP	Pa	150	50-200	50-200	50-200
Sound pressure level	dB(A)	42	47	48	51
Dimension (W×D×H)	Outline Package	mm mm	1463×756×300 1517×788×375	1500×1000×500 1843×1203×688	1500×1000×500 1843×1203×688
Net weight/Gross weight	kg	63.5/73.0	130/140	150/160	150/160
Connecting pipe diameter	Gas Liquid	inch(mm)	φ5/8(15.9) φ3/8(9.52)	φ7/8(22.2) φ3/8(9.52)	φ7/8(22.2) φ3/8(9.52)
Loading quantity	40'GP 40'HQ	set set	84 84	26 26	26 26
Model	Heat pump	GMV-R450P/Na(X4.0)-M	GMV-R560P/Na(X5.0)-M	GMV-R560P/Na(X6.0)-M	
Capacity	Cooling Heating	kW kW	45.0 32.0	56.0 39.0	56.0 39.0
Power supply	Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	
Motor power input	W	1500	2200	2200	
Air flow volume	Cooling Heating	m³/h CFM	4000 2354	5000 2942	6000 3531
ESP	Pa	50-200	50-200	50-200	
Sound pressure level	dB(A)	52	54	57	
Dimension (W×D×H)	Outline Package	mm mm	1700×1100×650 1893×1463×850	1700×1100×650 1893×1463×850	1700×1100×650 1893×1463×850
Net weight/Gross weight	kg	180/220	215/265	215/265	
Connecting pipe diameter	Gas Liquid	inch(mm)	φ9/8(28.6) φ1/2(12.7)	φ9/8(28.6) φ5/8(15.9)	φ9/8(28.6) φ5/8(15.9)
Loading quantity	40'GP 40'HQ	set set	14 21	14 21	14 21

## Control System Lineup

Wireless remote controller	Wired remote controller		Long-distance monitoring software		BMS accessories	
	Y512	Z6E351	JS02 (Receiver)	Gree AC Eudemon 2009 <sup>1</sup>	Communication module (modbus)	GMV BACnet gateway <sup>2</sup> (BACnet)
Centralized controller			Other modules			
Group controller (mini centralized controller)	Centralized controller <sup>3</sup> (modbus)	Smart zone controller	Key-card control board	Optoelectronic isolated converter	Optoelectronic isolated signal multiplexer	
ZJA011	CE51-24/E (M)	CE50-24/E	MK03	RS232-RS422/485	RS-422/485	

## Note:

● means standard, ○ means optional.

<sup>1</sup> If centralized controller CE51-24/E(M) or long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-00/E2 shall be selected also.

The quantity of the module should be confirmed according to the quantity of the outdoor unit.

<sup>2</sup> If MG30-24/D1(B) is selected, the communication module shall be selected also. The maximum quantity is 4. 4-outdoor-unit combinations can match 64 indoor units at most.<sup>3</sup> Centralized controller and Gree AC Eudemon 2009 cannot access networks at the same time.

## Energy Recovery Ventilation [ERV]

It is a kind of ventilation system that could recover the total heat of indoor air to save energy and it is widely used in residential or commercial building.



- Inner groove copper
- Intelligent defrosting
- Quiet function
- Compact design
- Easier maintainability
- Weekly timer
- Centralized control

- 7 models in a range of 350~3000m³/h fit for different spaces and reduce the waste of power.
- Filter and heat exchange core can be easily take out from the access for cleaning.
- Internal air filter keeps the fresh air introduced into room pure and dustless.
- With antibacterial and anti-mildew materials, the heat exchange core is suiting for healthy.
- Unique by-pass mode can reduce power consumption of fan motor to prolong lifetime of heat exchanger core.



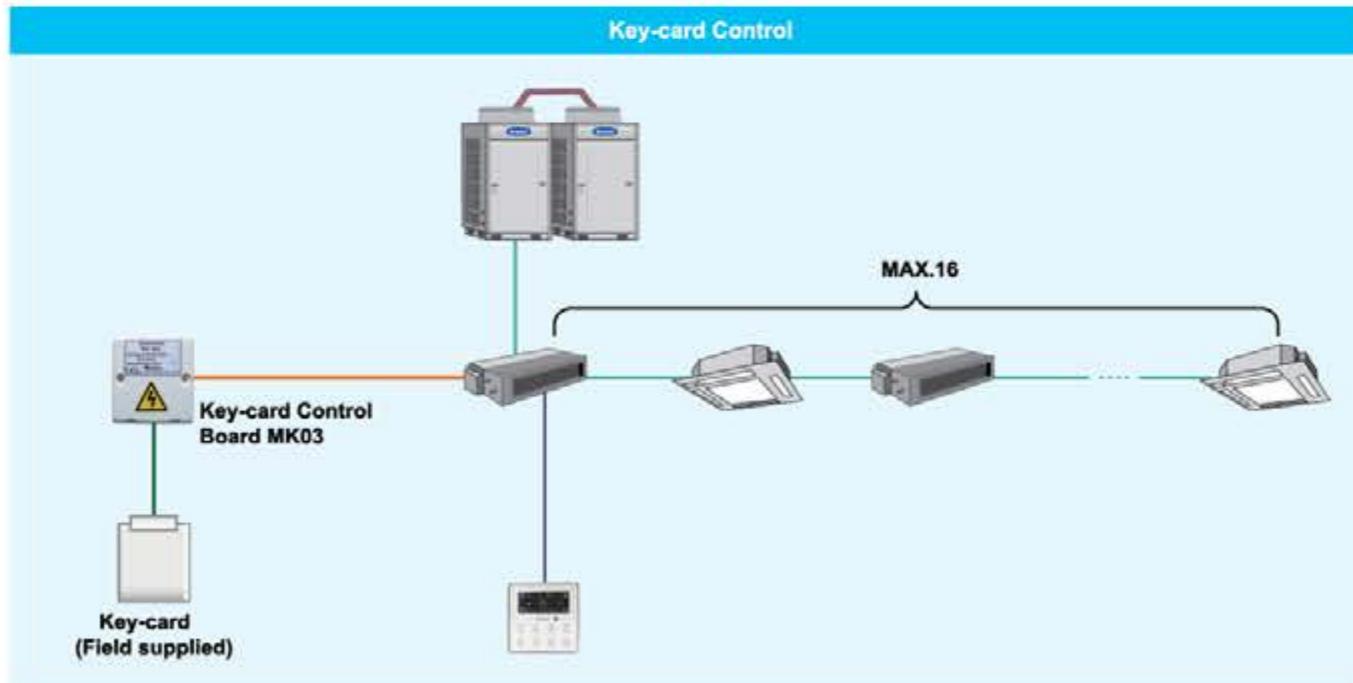
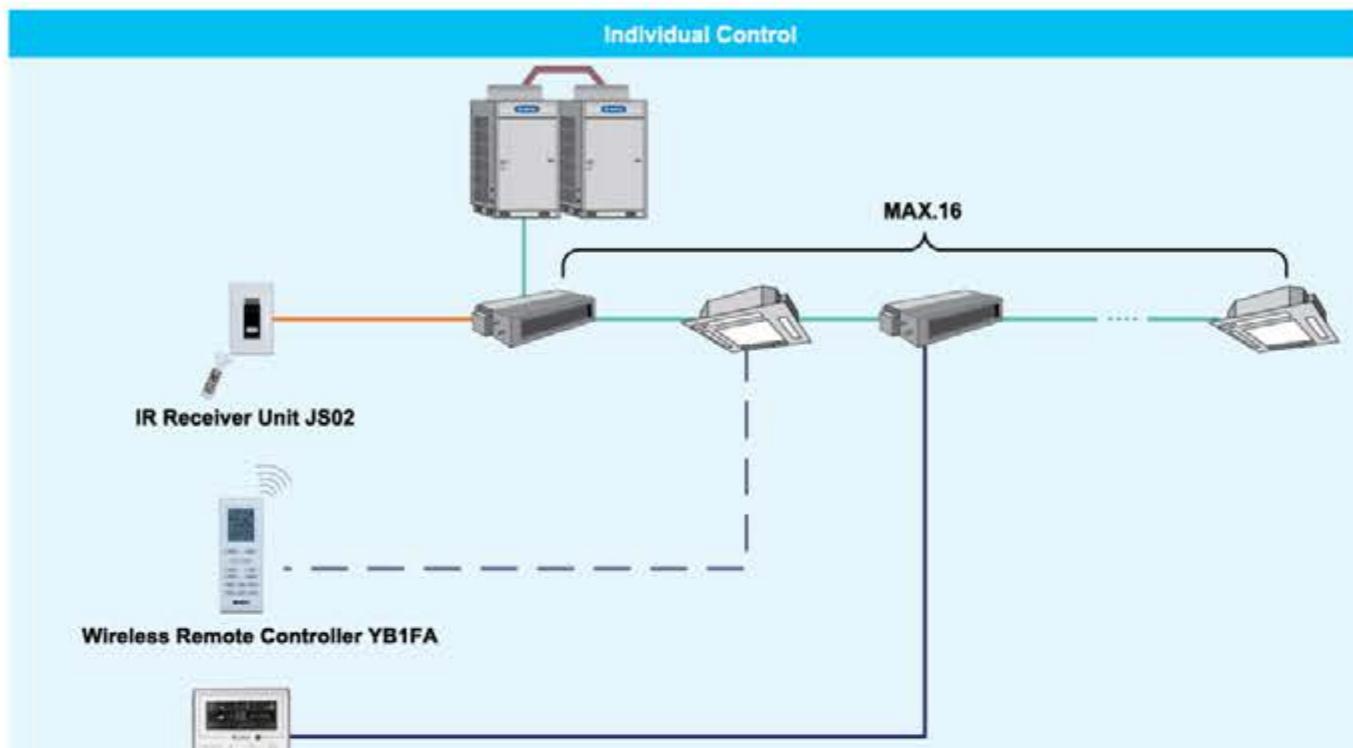
Model	FHBQ-D3.5-K	FHBQ-DS-K	FHBQ-D8-K	FHBQ-D10-K	FHBQ-D15-M	FHBQ-D20-M	FHBQ-D30-M
Air flow Volume	H/M/L	m³/h	350/260/210	500/380/300	800/600/480	1000/750/600	1500
ESP	H/M/L	Pa	100/80/60	100/80/60	110/85/65	110/85/65	150
Temperature exchange efficiency	H/M/L	%	71/73/75	68/70/72	73/77/79	73	71
Enthalpy exchange efficiency (H/M/L)	Heating Cooling	%	65/67/68 61/63/65	62/64/65 57/59/61	63/65/67 60/62/64	66/68/70 62/64/65	62
Power supply	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	3/380-415/50	3/380-415/50
Power input	W	165	262	400	440	800	950
Power input	dB(A)	37	39	45	46	46	54
Dimension (W×D×H)	Outline Package	mm mm	800×879×306 1050×1165×315	800×879×306 1050×1165×315	832×1016×380 1087×1320×400	832×1016×380 1087×1320×400	1210×1215×452 1550×1540×470
Net weight	kg	45	45	57	57	100	100
Gross weight	kg	53	53	66.5	66.5	115	115
Loading quantity	40'GP 40'HQ	set set	147	147	85	59	37
Standard wired remote controller	ZSN15	ZSN15	ZSN15	ZSN15	ZSN15	ZSN15	—

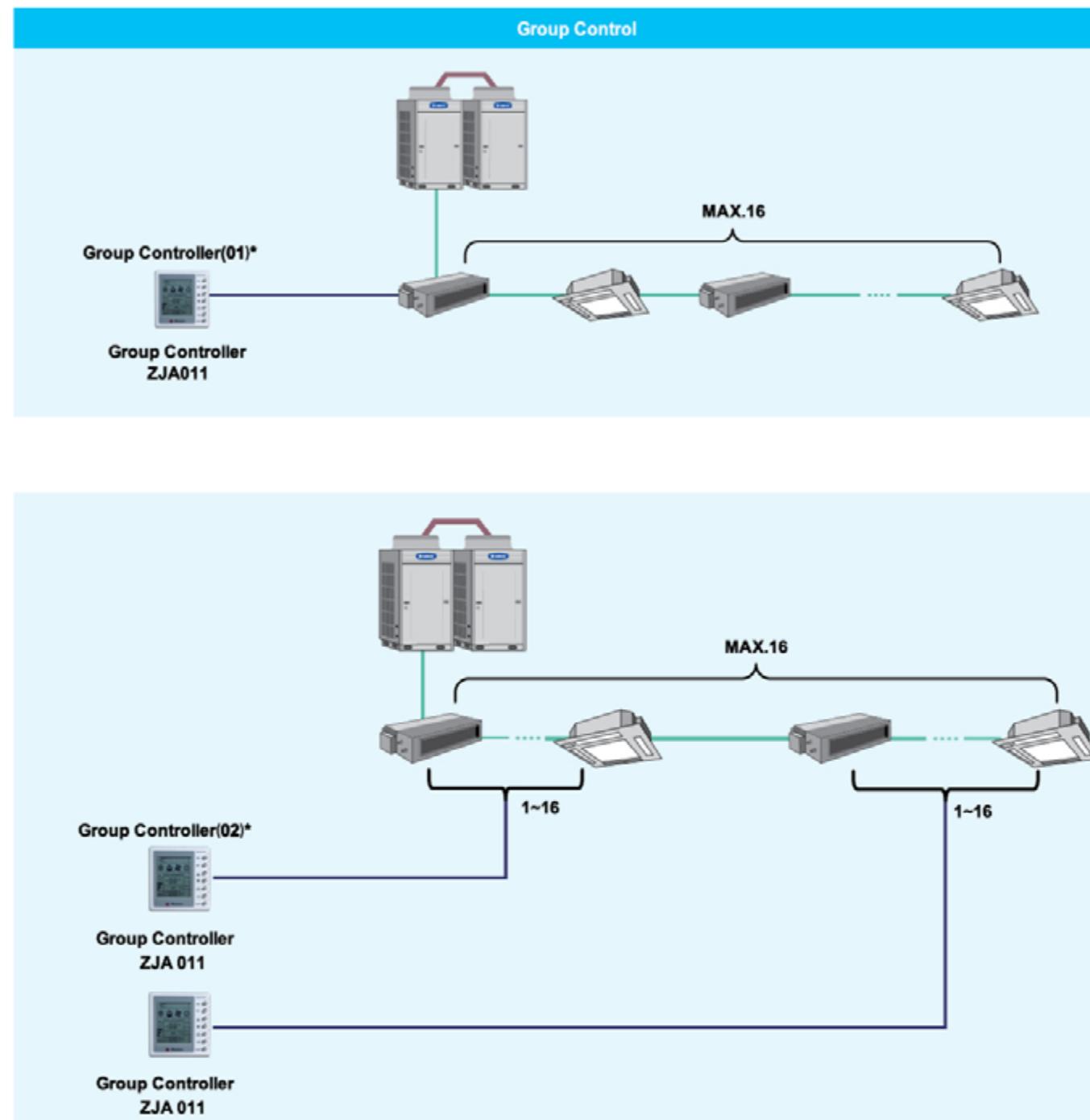
## Control System Lineup

Product series		Inverter series & HOME GMV						Heat recovery series			ERV
		Duct type	Cassette type	Wall-mounted type	Floor ceiling type	Floor ceiling type	Console type	Floorstanding type	Duct type	Cassette type	
Wireless remote controller	Y512	●	●	●	●	●			●	●	●
	YB1FA	●	●	●	●	●	●	●	●	●	
	YB1F2						●				
Wired controller	Z63151F (Heat/Cool)	●	●	●	●	●	●	○	●	●	●
	Z80381F (Heat/Cool)	●						●			
	Z5N151										●
	ZX60451	○	○	○	○	○	○	○	○	○	○
	J802 (Receiver)	○					○				
Centralized controller	Group controller (mini centralized controller)	ZJA011	●	○	○	○	○	○	○	○	○
	Centralized controller(modbus)	CE51-24/E(M)*	○	○	○	○	○	○	○	○	○
	Smart zone controller	CE50-24/E	○	○	○	○	○	○	○	○	○
BMS accessories	Communication module (modbus)	ME30-00/E2	○	○	○	○	○	○	○	○	○
	Communication module (modbus)	ME30-24/E2(M)	●	○	○	○	○	○	○	○	○
	GMV BACnet gateway (BACnet)	MG30-24/D1(B)*	○	○	○	○	○	○	○	○	○
	Interface of the main board	BMS	●								●
	Long-distance monitoring software	Gree AC Eudemon 2009*	FE30-00/A(M)	●	○	○	○	○	○	○	○
Other modules	Key-card control board	MK03	●	○	○	○	○	○	○	○	○
	Optoelectronic isolated converter	RS232-RS422/485	●	○	○	○	○	○	○	○	○
	Optoelectronic isolated signal multiplier	RS-422/485	●	○	○	○	○	○	○	○	○

Note:  
 ● means standard, ○ means optional.  
 \*1 If centralized controller CE51-24/E(M) or long-distance monitoring software Gree Eudemon 2009 is selected, the communication module shall be selected also. The quantity of the module should be confirmed according to the quantity of outdoor units.  
 \*2 If MG30-24/D1(B) is selected, the communication module shall be selected also. The maximum quantity is 4. 4-outdoor-unit combinations can match 64 indoor units at most.

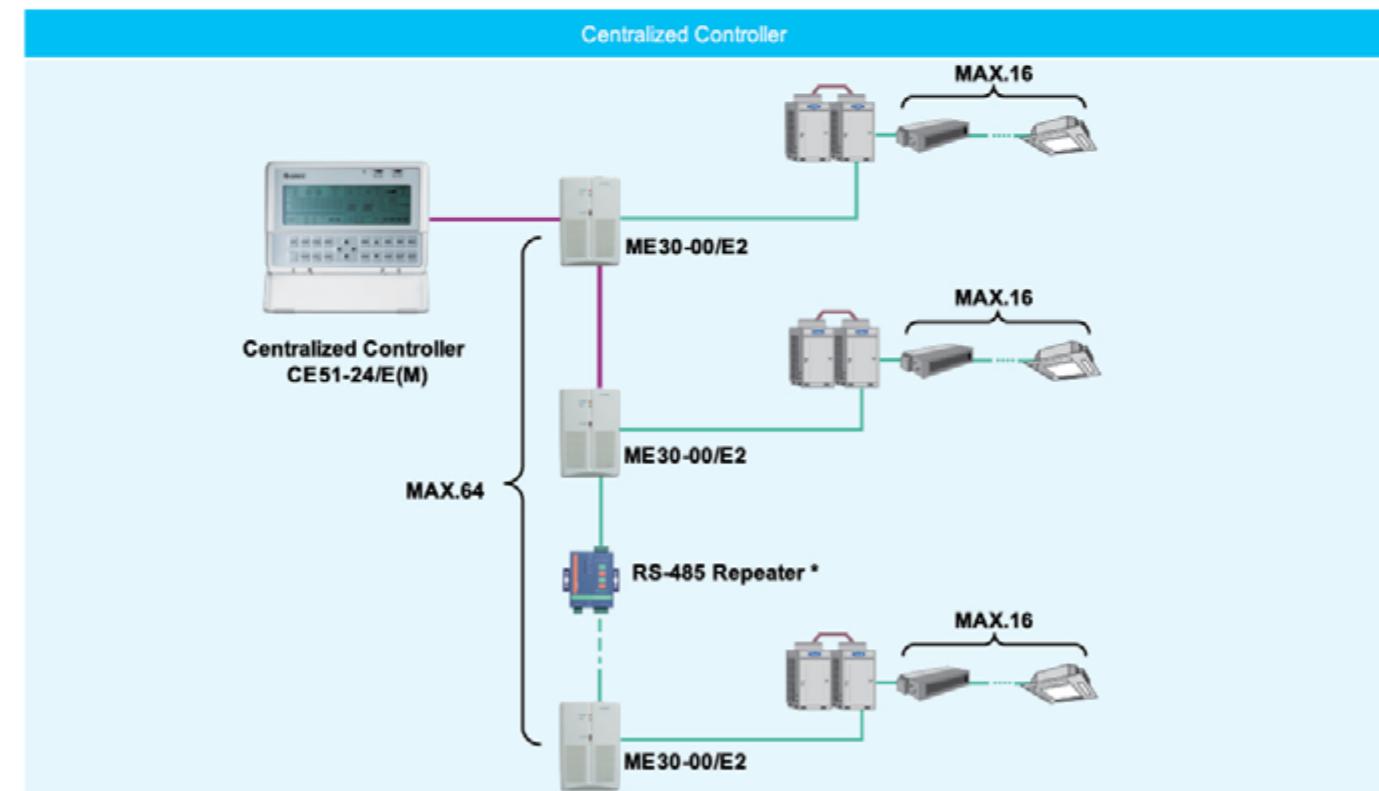
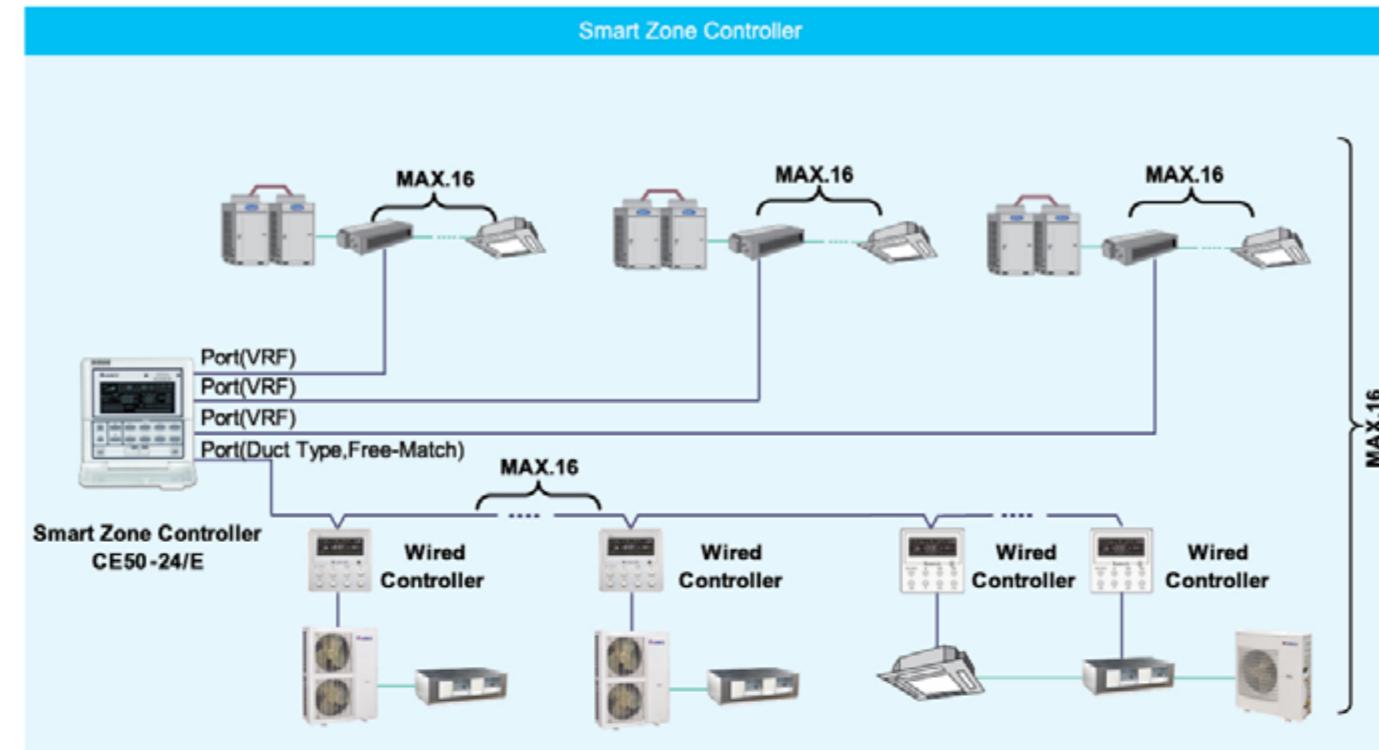
## GMV Control System



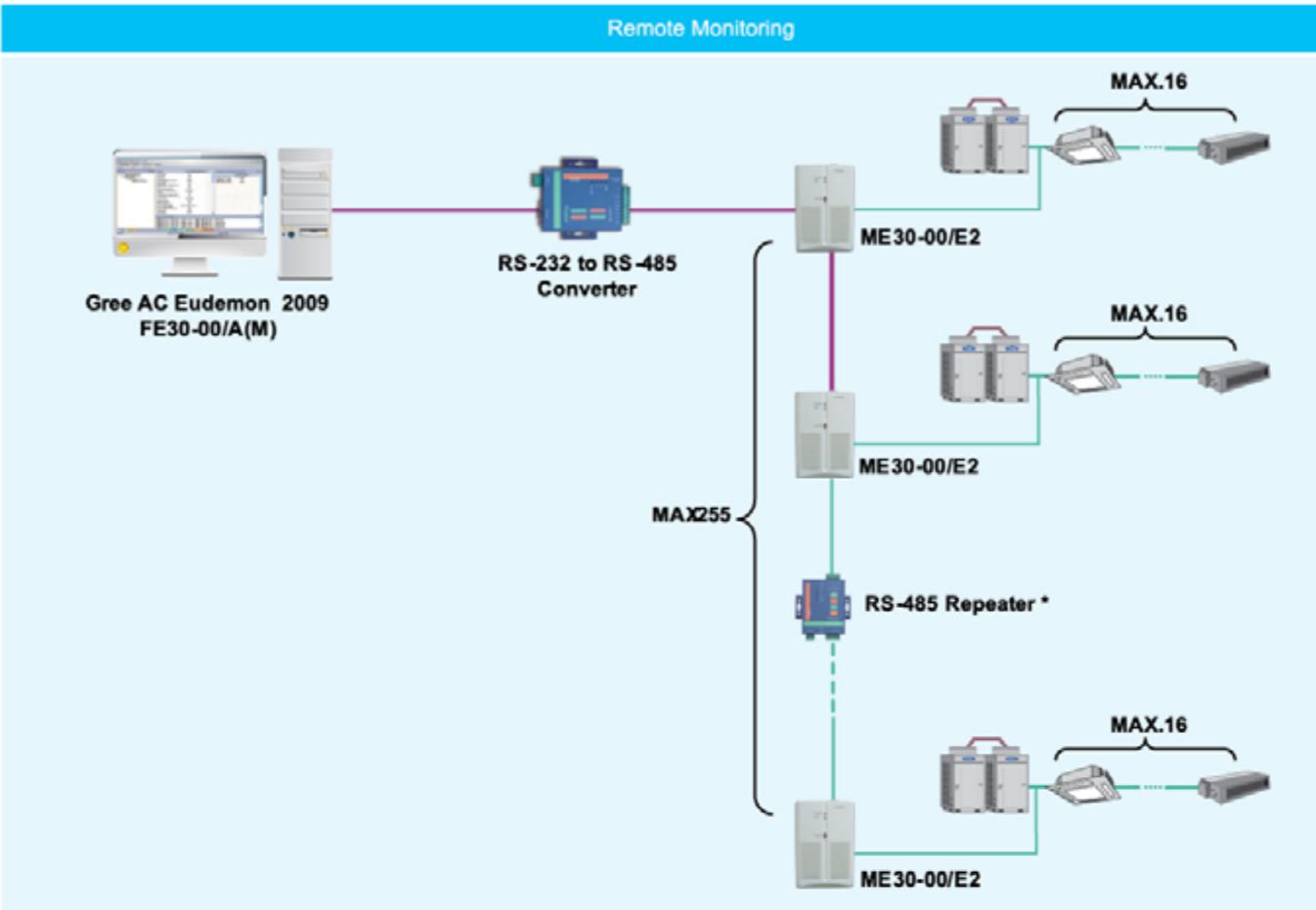


\* 01 indicates the group controller working together with the individual wired controller while 02 indicates the group controller working without the individual wired controller.

- Transmission line (GMV network)
- Group controller line
- Remote controller line
- IR receiver line
- Key-card control board line
- Key-card signal line

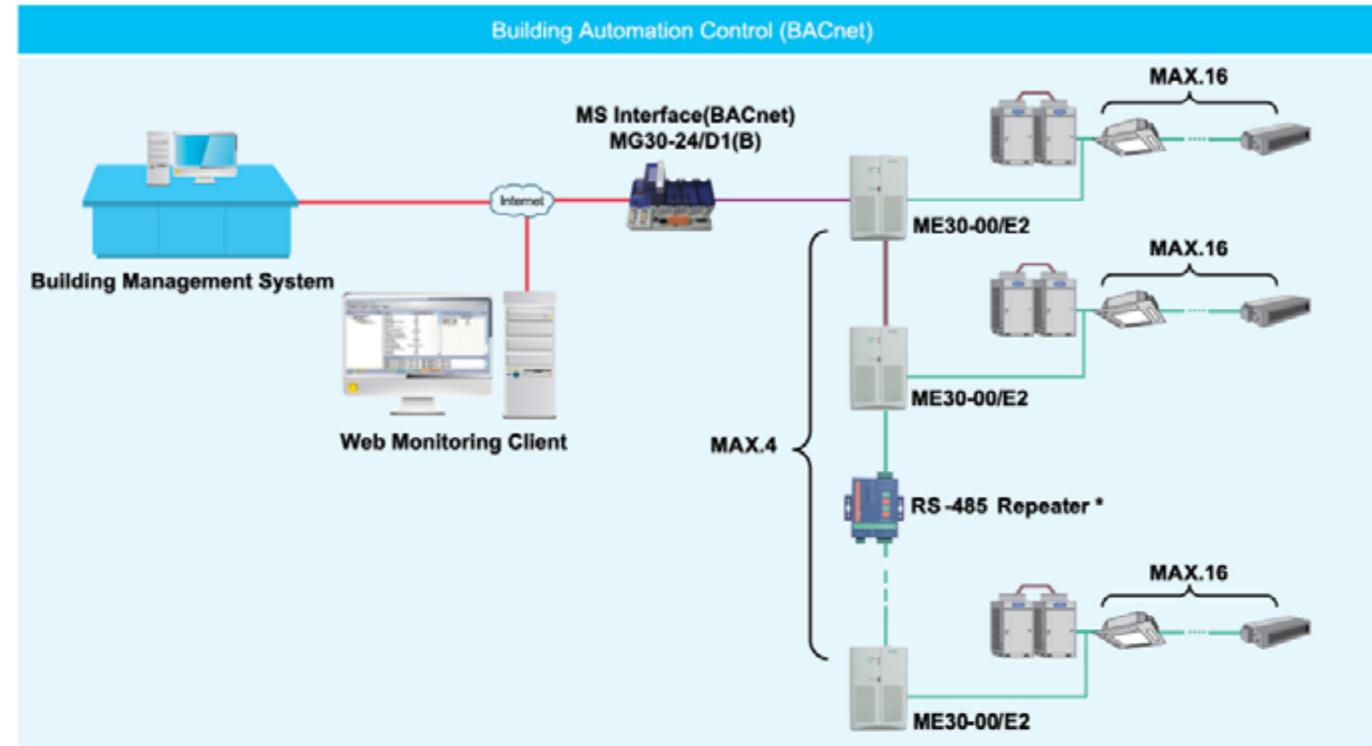


\* It applies when the communication line exceeds 800m or more than 30 communication modules are put into use.

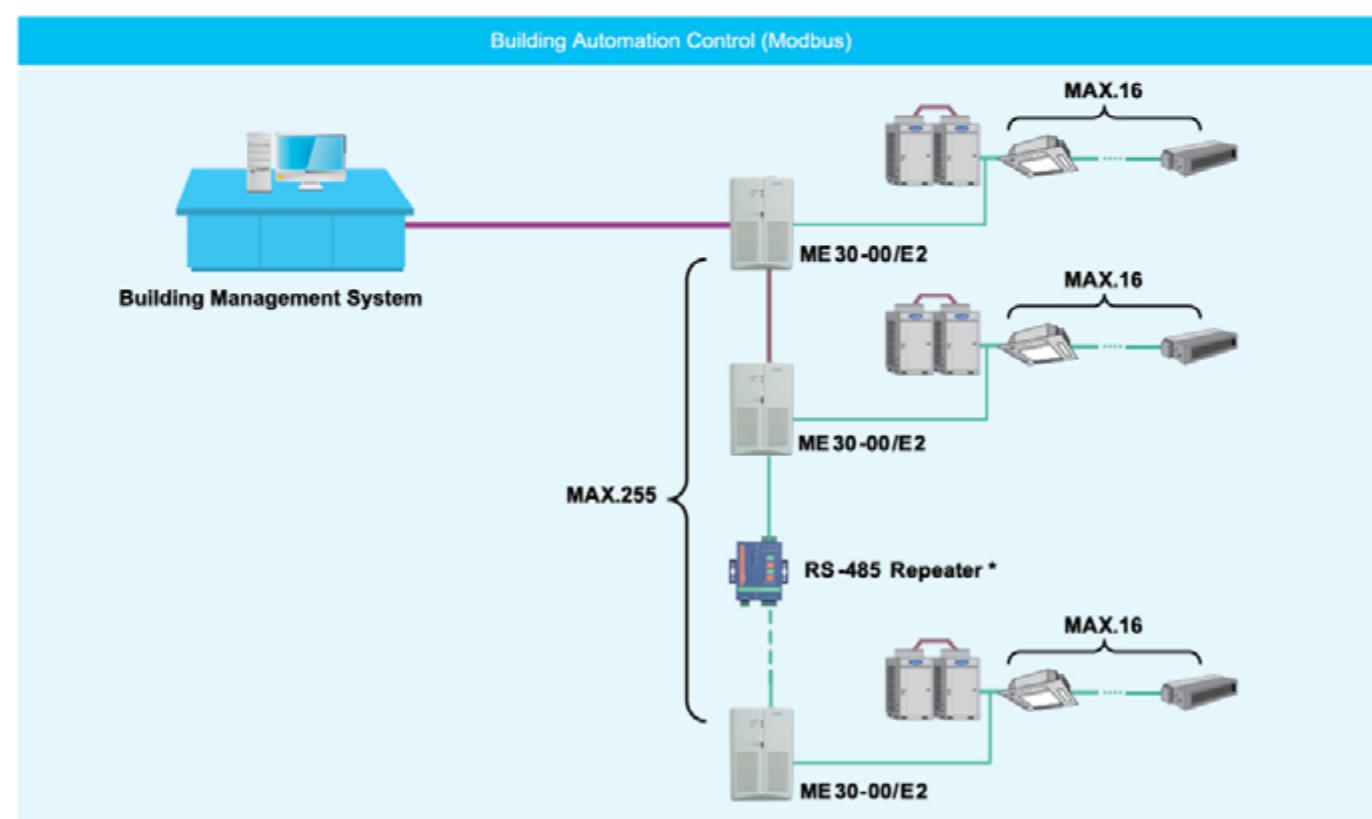


- It applies when the communication line exceeds 800m or more than 30 communication modules are put into use.

— Transmission line (GMV network)  
 — Modbus network



\* It applies when the communication line exceeds 800m.



\* It applies when the communication line exceeds 800m or more than 30 communication modules are put into use.

- Module link
- Transmission line (GMV network)
- BACnet network

# AIR TO WATER

**Versati II**

**Versati II<sup>+</sup> (Monobloc Type)**

**Split Type Water Heater**

**Ultra Series**



# VERSATI II

It is a kind of DC inverter multifunctional air to water heat pump that could not only supply domestic hot water, but also realize cooling or heating for residential use.



- Twin rotary DC inverter compressor creates comfortable living circumstance and saves energy.
- The electronic expansion valve guarantees that the system made adjustments automatically according to the changes of the circumstance and water temperature.
- Smart dual-temperature detection control technology.
- The disinfection function at a high temperature up to 70°C can prevent the growth of bacteria and ensure sanitary water, creating a wholesome life for the use.
- Isolation of water and electricity ensures safe operation.
- Dual-coil design makes it convenient to join solar panel or boiler.
- Five-mode operation: heating, cooling, water heating, heating and water heating, cooling and water heating.
- The unit will periodically increase or decrease water temperature in debugging process, to improve floor adaptability for temperature change.



Item	Operation range (temperature)			Outdoor condition
	Nominal operating condition	DB(°C)	WB(°C)	
Cooling	35	24	10~46	
Heating	7	6	-20~35	
Water heating	7	6	-20~45	

## Outdoor Unit

Model	GRS-CQ6.0Pd/NaB-K(O)		GRS-CQ8.0Pd/NaB-K(O)		GRS-CQ10Pd/NaB-K(O)		GRS-CQ12Pd/NaB-K(O)		GRS-CQ14Pd/NaB-K(O)		GRS-CQ16Pd/NaB-K(O)	
	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	
Power supply												
Capacity <sup>1</sup>	Cooling <sup>3</sup>	kW	5.8	8.5	10	12.5	13.5	14.5				
	Heating <sup>4</sup>	kW	6.2	8.5	9.6	12.5	13.5	15.5				
Power Input <sup>1</sup>	Cooling <sup>3</sup>	kW	1.53	2.54	3.28	3.57	4.09	4.53				
	Heating <sup>4</sup>	kW	1.43	2.05	2.36	2.80	3.06	3.78				
EER/COP <sup>1</sup>		W/W	3.8/4.35	3.35/4.15	3.05/4.10	3.5/4.45	3.3/4.4	3.2/4.1				
Capacity <sup>2</sup>	Cooling <sup>3</sup>	kW	4.2	6.2	7.5	9.5	10	10.5				
	Heating <sup>4</sup>	kW	5.4	7.5	8.5	11	12	14				
Power Input <sup>2</sup>	Cooling <sup>3</sup>	kW	1.56	2.38	3.00	3.39	3.36	3.57	3.86			
	Heating <sup>4</sup>	kW	1.74	2.50	2.79	3.14	3.36	4				
EER/COP <sup>2</sup>		W/W	2.73/10	2.61/3.00	2.50/3.05	2.8/3.5	2.8/3.45	2.65/3.5				
Refrigerant charge volume	kg	1.9	2.1	2.1	3.2	3.2	3.2					
Sanitary water temperature	°C	40~80	40~80	40~80	40~80	40~80	40~80					
Sound pressure level	Cooling dB(A)	51	54	54	55	55	55	57	57	57	58	
	Heating dB(A)	52	55	55	57	57	57					
Connecting pipe diameter	Gas inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	
	Liquid inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	
Dimensions (W×D×H)	Outline mm	980x360x790	980x360x790	980x360x790	900x412x1345	900x412x1345	900x412x1345	900x412x1345	900x412x1345	900x412x1345	900x412x1345	
	Packaged mm	1094x474x847	1094x474x847	1094x474x847	995x455x1500	995x455x1500	995x455x1500	995x455x1500	995x455x1500	995x455x1500	995x455x1500	
Net weight/Gross weight	kg	77/82	78.5/83.5	78.5/83.5	106/118	106/118	106/118	106/118	106/118	106/118	106/118	
Loading quantity	40'GP	-	96	96	96	50	50	50	50	50	50	
	40HQ	-	96	96	96	50	50	50	50	50	50	

Model	GRS-CQ12Pd/NaB-M(O)		GRS-CQ14Pd/NaB-M(O)		GRS-CQ16Pd/NaB-M(O)	
	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	Capacity <sup>3</sup>	V/Ph/Hz	Capacity <sup>3</sup>
Power supply						
Capacity <sup>1</sup>	Cooling <sup>3</sup>	kW	13.5	14.5	14.5	15
	Heating <sup>4</sup>	kW	12.5	14.2	14.2	15.5
Power Input <sup>1</sup>	Cooling <sup>3</sup>	kW	3.46	3.91	3.91	4.11
	Heating <sup>4</sup>	kW	2.75	3.23	3.23	3.78
EER/COP <sup>1</sup>		W/W	3.90/4.55	3.71/4.4	3.71/4.4	3.65/4.1
Capacity <sup>2</sup>	Cooling <sup>3</sup>	kW	9.5	10.5	10.5	11.0
	Heating <sup>4</sup>	kW	11.5	12.5	12.5	14
Power Input <sup>2</sup>	Cooling <sup>3</sup>	kW	3.17	3.58	3.58	3.73
	Heating <sup>4</sup>	kW	3.38	3.62	3.62	4.12
EER/COP <sup>2</sup>		W/W	3.0/3.4	2.95/3.45	2.95/3.45	2.95/3.4
Refrigerant charge volume	kg	3.4	3.4	3.4	3.4	3.4
Sanitary water temperature	°C	40~80	40~80	40~80	40~80	40~80
Sound pressure level	Cooling dB(A)	55	55	55	56	56
	Heating dB(A)	57	57	57	59	59
Connecting pipe diameter	Gas inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)
	Liquid inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
Dimensions (W×D×H)	Outline mm	900x412x1345	900x412x1345	900x412x1345	995x455x1500	995x455x1500
	Packaged mm	107/117	107/117	107/117	107/117	107/117
Net weight/Gross weight	kg	107/117	107/117	107/117	107/117	107/117
Loading quantity	40'GP	-	50	50	50	50
	40HQ	-	50	50	50	50

### Note:

1. Capacities and power inputs are based on the following conditions:
  - Cooling conditions.
  - Indoor Water Temperature 23°C/18°C.
  - Outdoor Air Temperature 35°CDB/24°CWB.
  - Heating conditions.
  - Indoor Water Temperature 30°C/35°C.
  - Outdoor Air Temperature 7°CDB/6°CWB.
  - Standing piping length 7.5m.

2. Capacities and power inputs are based on the following conditions:
  - Cooling conditions.
  - Indoor Water Temperature 12°C/7°C.
  - Outdoor Air Temperature 35°CDB/24°CWB.
  - Heating conditions.
  - Indoor Water Temperature 40°C/45°C.
  - Outdoor Air Temperature 7°CDB/6°CWB.
  - Standing piping length 7.5m.

3. For floor cooling.
4. For floor heating.
5. For fan coil unit.
6. For fan coil or radiator.

## Indoor Hydro Unit

Model	Indoor unit	GRS-CQ6Pd/NaB-K(I)	GRS-CQ8Pd/NaB-K(I)	GRS-CQ10Pd/NaB-K(I)	GRS-CQ12Pd/NaB-K(I)	GRS-CQ14Pd/NaB-K(I)	GRS-CQ16Pd/NaB-K(I)
Power Supply	V/Ph/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Nominal input	W	3200	6200	6200	6200	6200	6200
Leaving water temperature	Cooling <sup>*1</sup>	7~25	7~25	7~25	7~25	7~25	7~25
	Cooling <sup>*2</sup>	18~25	18~25	18~25	18~25	18~25	18~25
	Heating <sup>*1</sup>			25~55(High temperature cycle )			
	Heating <sup>*2</sup>			25~45(Low temperature cycle )			
Pump	Type	-	-	Water-cooled			
	Nr. of speed	-	3	3	3	3	3
	Power input	W	165	200	200	200	200
	Water flow limit	LPM	12	12	12	12	12
Electric Heater	Operation	-	Automatic	Automatic	Automatic	Automatic	Automatic
	Steps	-	2	2	2	2	2
	Capacity	kW	3	6	6	6	6
	Combination	kW	1.5+1.5	3+3	3+3	3+3	3+3
	Power input	Ph/V/Hz	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50
Sound pressure level	dB(A)		31	31	31	31	31
Connecting pipe diameter	Gas	inch(mm)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)	φ5/8(15.9)
	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)	φ3/8(9.52)
Dimensions (W×D×H)	Outline	mm	900x500x324	900x500x324	900x500x324	900x500x324	900x500x324
	Packaged	mm	1040x605x380	1040x605x380	1040x605x380	1040x605x380	1040x605x380
Net weight/Gross weight	kg	57.5/68	57.5/68	57.5/68	57.5/68	57.5/68	57.5/68
Loading quantity	40GP/40HQ	-	205/246	205/246	205/246	205/246	205/246

Model	Indoor unit	GRS-CQ12Pd/NaB-M(I)	GRS-CQ14Pd/NaB-M(I)	GRS-CQ16Pd/NaB-M(I)
Power Supply	V/Ph/Hz	3/380-415/50	3/380-415/50	3/380-415/50
Nominal input	W	6200	6200	6200
Leaving water temperature	Cooling <sup>*1</sup>	7~25	7~25	7~25
	Cooling <sup>*2</sup>	18~25	18~25	18~25
	Heating <sup>*1</sup>		25~55(High temperature cycle )	
	Heating <sup>*2</sup>		25~45(Low temperature cycle )	
Pump	Type	-	Water-cooled	
	Nr. of speed	-	3	3
	Power input	W	200	200
	Water flow limit	LPM	12	12
Electric Heater	Operation	-	Automatic	Automatic
	Steps	-	1	1
	Capacity	kW	6	6
	Combination	kW	6	6
	Power input	Ph/V/Hz	3/400/50	3/400/50
Sound pressure level	dB(A)		31	31
Connecting pipe diameter	Gas	inch(mm)	φ5/8(15.9)	φ5/8(15.9)
	Liquid	inch(mm)	φ3/8(9.52)	φ3/8(9.52)
Dimensions (W×D×H)	Outline	mm	900x500x324	900x500x324
	Packaged	mm	1040x605x380	1040x605x380
Net weight/Gross weight	kg	60/69	60/69	60/69
Loading quantity	40GP/40HQ	-	205/246	205/246

Note:  
\*1 for fan coil unit; \*2 for floor cooling; \*3 for floor heating.

## Water Tank

Model	SXVD200LCJ/A-K	SXVD200LCJ2/A-K	SXVD300LCJ/A-K	SXVD300LCJ2/A-K
Water tank volume	L	200	200	300
Power supply	Ph/V/Hz	1/230/50	1/230/50	1/230/50
Electric heater power	W	3000	3000	3000
Screw thread spec of pipe	Cool water inlet	inch(mm)	φ1/2" Female BSP(12.7)	φ1/2" Female BSP(12.7)
	Hot water outlet	inch(mm)	φ1/2" Female BSP(12.7)	φ1/2" Female BSP(12.7)
Dimension	Outline	Diameter×H	φ540×1595	φ540×1595
	Packaged	W×D×H	1620×625×630	1620×625×630
Net weight/Gross weight	kg	68/77	71/80	82/92
Loading quantity	40GP/40HQ	set	75/100	63/63

Model	SXVD200LCJ/A-M	SXVD200LCJ2/A-M	SXVD300LCJ/A-M	SXVD300LCJ2/A-M
Water tank volume	L	200	200	300
Power supply	Ph/V/Hz	3/400/50	3/400/50	3/400/50
Electric heater power	W	3000	3000	3000
Screw thread spec of pipe	Cool water inlet	inch(mm)	φ1/2" Female BSP(12.7)	φ1/2" Female BSP(12.7)
	Hot water outlet	inch(mm)	φ1/2" Female BSP(12.7)	φ1/2" Female BSP(12.7)
Dimension	Outline	Diameter×H	φ540×1595	φ540×1595
	Packaged	W×D×H	1620×625×630	1620×625×630
Net weight/Gross weight	kg	68/77	71/80	82/92
Loading quantity	40GP/40HQ	set	75/100	63/63

## VERSATI II+(Monobloc Type)

It is a kind of DC inverter multifunctional air to water heat pump that could not only supply domestic hot water, but also realize cooling or heating for residential use.



Wired controller Z263P



- Floor Heating Debugging
- High efficiency
- Quiet function
- Self-diagnosis
- Wide voltage range
- Comprehensive protection
- Compact design

- Integral installation, convenient and cost-saving.
- Two-stage compression technology is adopted to greatly improve the system's performance, especially for improving energy efficiency of heating in low ambient temperature.
- Smart dual-temperature detection control technology.
- Solar kit linkage function is added to automatically control water heating of solar energy, energy-saving and eco-friendly.
- High outlet water temperature and wide water temperature range, meeting the demands of various terminals.



Item	Operation range (temperature)		Outdoor condition
	Nominal operating condition	DB(°C)	WB(°C)
Cooling		35	24
Heating		7	6
Water heating		7	6

Model		GRS-CQ6.0Pd/NaC-K(O)	GRS-CQ10Pd/NaC-K(O)	GRS-CQ12Pd/NaC-M(O)	GRS-CQ14Pd/NaC-M(O)
Power supply	V/Ph/Hz	220~240V/1Ph/50Hz		380~415V/3Ph/50Hz	
Capacity <sup>1</sup>	Cooling <sup>*3</sup> kW	8.6	9.8	13.6	14.5
	Heating <sup>*4</sup> kW	8.2	9.5	13	14.2
Power Input <sup>*5</sup>	Cooling <sup>*5</sup> kW	2	2.5	3.45	3.7
	Heating <sup>*5</sup> kW	1.82	2.2	2.85	3.35
EER/COP <sup>*1</sup>	W/W	4.3/4.51	3.92/4.3	3.94/4.56	3.92/4.24
Capacity <sup>*2</sup>	Cooling <sup>*5</sup> kW	6.7	7.4	9.55	10.3
	Heating <sup>*5</sup> kW	7.8	9.5	12.5	13
Power Input <sup>*5</sup>	Cooling <sup>*5</sup> kW	2	2.5	3.45	3.7
	Heating <sup>*5</sup> kW	1.82	2.2	3.35	3.6
EER/COP <sup>*2</sup>	W/W	3.26/3.39	3.1/3.53	3.18/3.73	3.12/3.61
Refrigerant charge volume	kg	3.5	3.5	4	4
Sanitary water temperature	°C	40~80	40~80	40~80	40~80
Sound pressure level	Cooling dB(A)	53	53	54	54
	Heating dB(A)	53	53	54	54
Connecting pipe diameter	Gas inch(mm)	ø5/8(15.9)	ø5/8(15.9)	ø5/8(15.9)	ø5/8(15.9)
Liquid	inch(mm)	ø3/8(9.52)	ø3/8(9.52)	ø3/8(9.52)	ø3/8(9.52)
Dimensions (W×D×H)	Outline mm	921×427×791	921×427×791	900×412×1345	900×412×1345
Packaged	mm	1065×485×840	1065×485×840	998×458×1515	998×458×1515
Net weight/Gross weight	kg	66/71	66/71	191/209	191/209
40'GP	-	96	96	50	50
40'HQ	-	144	144	50	50
Loading quantity					

## Note:

1. Capacities and power inputs are based on the following conditions:

- \* Cooling conditions.
- \* Indoor Water Temperature 23°C/18°C.
- \* Outdoor Air Temperature 35°CDB/24°CWB.
- \* Heating conditions.
- \* Indoor Water Temperature 30°C/35°C.
- \* Outdoor Air Temperature 7°CDB/6°CWB.
- \* Standing piping length 7.5m.

- 3. For floor cooling.
- 4. For floor heating.
- 5. For fan coil unit.
- 6. For fan coil or radiator.

2. Capacities and power inputs are based on the following conditions:

- \* Cooling conditions.
- \* Indoor Water Temperature 12°C/7°C.
- \* Outdoor Air Temperature 35°CDB/24°CWB.
- \* Heating conditions.
- \* Indoor Water Temperature 40°C/45°C.
- \* Outdoor Air Temperature 7°CDB/6°CWB.
- \* Standing piping length 7.5m.

## Split Type Water Heater

High-temperature split type air source water heater can operate from -7°C to 45°C. Its installation is convenient and it is applicable for a family of 3 to 5 members.



Controller XK64



Self-diagnosis



T/C switch



Inner groove copper



Compact design



Clock display



Intelligent defrosting



Easier maintainability



Child lock



Intelligent defrosting

- Safety and eco-friendly

Water and electricity are separated to avoid possible electric shock. Without possible toxicities of CO, user's safety can be ensured. No pollutant is released during operation, so there is no damage to the environment.

- Reliable and durable

Adopting special compressor, the unit is resistant to high temp and pressure. The water tank adopts advanced stainless steel inner container with ultra-long magnesium sticks. The entire unit is with multiple protection functions to ensure long lifespan of the system.

- Easy installation

Without limitation of environment, the unit can be installed in kitchen, garage, stock room or basement. It is also suitable for skyscrapers, villa, and so on. Installation and maintenance is convenient for its no cycle waterway system.

- Easy operation

Water temperature can be set. Water supply can be on or off depending on water temperature and water consumption, so that hot water can be supplied at any time. Unit on/off can be set by user according to requirements (the unit will stop once water temperature reaches the setting point). Running of unit in electric plolykurtosis is possible to reduce electricity fee.

- Intelligent defrosting

The unit with anti-freezing and intelligent defrosting functions can efficiently prevent freezing and frosting.

- All-day use

The unit can make and supply hot water all day in despite of night, overcast and rainy days.

### Outdoor Unit

Model	GRS-S3.0G/NbA-K	
Rated water heating capacity	kW	2.8
Rated water supply	l/h	60
COP	W/W	4
Water temperature range	°C	36~70
Power supply	Ph/V/Hz	220~240V/50Hz
Rated power input	Water heating kW	0.7
Max power input	Water heating kW	2.9
Sound Pressure level	dB(A)	50
Dimension(W×D×H)	Outline mm	848×320×540
	Packaged mm	941×371×615
Net weight/Gross weight	kg	36/42
Loading quantity	40'GP/40'HQ	set
		225/258

### Water Tank

Model	5XD200/LCJW/C1-K	
Volume	L	200
Dimension	Diameter mm	545
	Height mm	1919
Water pipes	Package(W×D×H) mm	2009×656×625
diameter	Cool water inlet inch	0.59
	Hot water outlet inch	0.59
Net weight/Gross weight	kg	52/60
Loading quantity	40'GP/40'HQ	set
		51/68

Note: Testing conditions of above data: Outdoor ambient temperature 20°C DB/15°C WB; initial/terminative water temperature in water tank: 15°C/55°C. If the specifications are changed due to product improvement, please refer to the parameters on the nameplate.

# Ultra Series

Ultra series water heater is capable of operation in ambient temperature from -26°C to 46°C with the maximum outlet water temperature of 70°C. It is with multiple protection functions and intelligent management functions to ensure safety, reliable and energy-saving operation of unit.



GRS-Dm30/NaA-M  
GRS-Dm40/NaA-M



GRS-Dm60/NaA-M



Wired controller Z26301K



High efficiency



Low temperature heating



Low voltage startup



Compact design



Intelligent defrosting



Wide voltage range



Easier maintainability



Intelligent defrosting



Comprehensive protection



Wide operation range

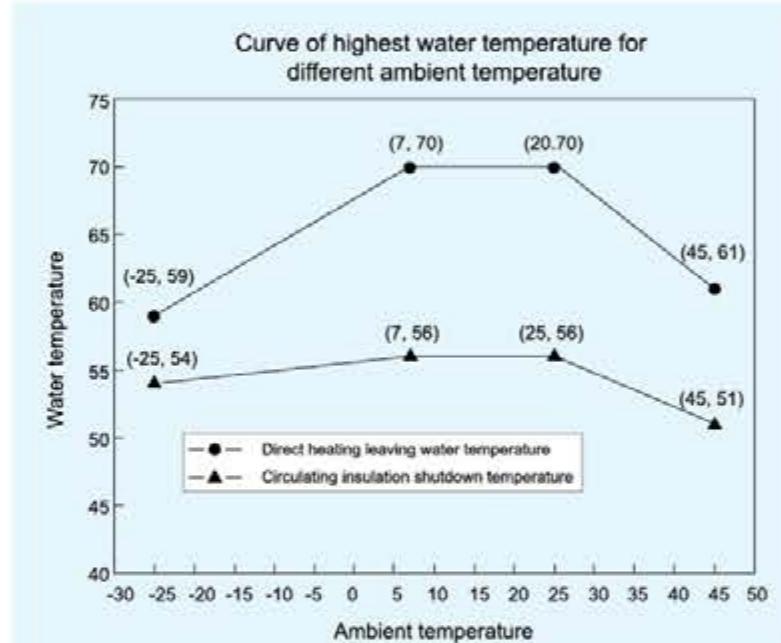


Modular operating

Model	GRS-Dm30/NaA-M	GRS-Dm40/NaA-M	GRS-Dm60/NaA-M
Rated water heating capacity	kW	31	40
Rated water supply	l/h	667	860
COP	WW	3.83	4
Water temperature range	°C	35~70	35~70
Power supply	Ph/V/Hz	3/380~415/50	3/380~415/50
Rated power input	Water heating	kW	8.1
Max power input	Water heating	kW	10.5
Sound Pressure level	Db(A)	≤67	≤67
Dimension(W*D*H)	Outline	mm	930×800×1605
	Packaged	mm	1010×865×1775
Net weight/Gross weight	kg	238/282	264/286
Loading quantity	40'GP/40'HQ	set	26/26

Note:

1. Testing conditions of above data: Ambient temperature 20°C DB/15°C WB; entering/leaving water temperature: 15°C/55°C; power supply: 380V 3N/50HZ;
2. Considering the system reliability and various water temperature demands for different ambient temperature, we have limited the highest water temperature. The curve is shown as below.



- Grounding protection: The system is with multiple grounding protection to avoid electric leakage.
- Electric leakage protection: The electric leakage switch will automatically cut off the power supply when there is electric leakage, in order to ensure safety.
- Over-current protection: The system will turn off automatically in overload, in order to ensure safety of the system.
- High pressure protection: Protection in overhigh pressure ensures the reliability of the system.
- Low pressure protection: It avoids no-load operation to ensure the reliability of the system.
- High temperature protection: It avoid the influence of overhigh discharge temperature to ensure the lubrication effect of compressor lubricant.
- Water pressure protection: It restricts the lowest water pressure to ensure high-efficiency operation of the system.
- Water flow protection: It detects the water flow to avoid no water operation.
- Anti-freezing protection: It is with multiple anti-freezing design to ensure reliable operation of the system in ultra-low ambient temperature.
- Overflowing protection: It detects the water level automatically to avoid overflowing of water tank.

# SCROLL CHILLER

**Inverter Mini Chiller**

**Mini Chiller**

**Modular Air-cooled Scroll Chiller**



## Inverter Mini Chiller

Inverter mini chiller, is a kind of small-size air-cooled chiller that can be connected to all sorts of fan coil unit to realize cooling and heating. It can be used on the temperature range of -15~48°C.



8-10kW



12-14kW



Wired controller Z263P



Inner groove copper



Self-diagnosis



Comprehensive protection



Memory function

## Mini Chiller

It is a kind of small-sized air-cooled chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for hotel, villa, apartment, office, etc.

Split type



7.5kW



14.2kW

Integral type



21.5/22.8kW



31/42kW



Inner groove copper



Self-diagnosis



Comprehensive protection



Modular structure\*



Memory function



Wired controller Z16301/Z12301A



Wired controller Z26301C

- Compressor inverter control regulates water temperature precisely.
- Integral installation is convenient and cost-saving.
- Precise system pressure control improves the anti-freezing function of the system.
- Two-stage compression technology is adopted to greatly improve the system's performance.



Item	Water side (water temperature)		Air side (outdoor temperature)				
	Nominal operating condition Inlet(°C)	Outlet(°C)	Operating range Outlet(°C)	I/O difference(°C)	Nominal operating condition DB(°C)	WB(°C)	Operating range DB(°C)
Cooling	12	7	7~12	3~8	35	24	10~48
Heating	40	45	45~50	3~8	7	6	-20~35

Model	Heat pump	HLR8Pd/Na-M		HLR10Pd/Na-M		HLR12Pd/Na-M		HLR14Pd/Na-M	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	Cooling	kW	7.20	10.00	12.50	14.00			
	Heating	kW	7.8	11	13	15			
EER/COP	WW	3.27/3.39		2.8/3.1		2.8/3.1		2.8/3.1	
Power supply	V/Ph/Hz		220~240V-1Ph-50Hz		380~415V-3Ph-50Hz				
Power input	Cooling	kW	2.2	2.55	2.9	3.2			
	Heating	kW	2.3	2.7	3.2	3.6			
Compressor	Type	-	Rotary	Rotary	Rotary	Rotary			
Quantity	-	1	1	1	1	1			
Refrigerant charge volume	kg	3.5	3.5	4	4				
Water flow volume	l/s	0.39	0.47	0.61	0.72				
	GPM	5	6.3	7.79	9.5				
Built-in chilled water pump	Pump power input	kW	0.105	0.105	0.105	0.105			
	Delivery lift	m	7.5	7.5	7.5	7.5			
Built-in expansion vessel volume	L	10	10	10	10				
Chilled water outlet/inlet screw thread spec	inch	5/8	5/8	5/8	5/8				
Sound pressure level	Db(A)	53	53	54	54				
Dimension (W×D×H)	Outline	mm	980*790*360	980*790*360	980*790*360	980*790*360			
	Packaged	mm	1094*474*847	1094*474*847	1094*474*847	1094*474*847			
Net weight/Gross weight	kg	85/100	85/100	191/209	191/209				
Loading quantity	40'GP/40'HQ	set	87/87	87/87	87/87	87/87			

Item	Water side (water temperature)			Air side (outdoor temperature)		
	Nominal operating condition Inlet(°C)	Outlet(°C)	Operating range Outlet(°C)	Nominal operating condition DB(°C)	WB(°C)	Operating range DB(°C)
Cooling	12	7	7~12	3~8	35	—
Heating	40	45	45~50	3~8	7	6

## Split type

Model	Heat pump	HLR8WZNa-M	HLR10WZNa-M	HLR12.5WZNa-M	HLR15WZNa-M
Capacity	Cooling	kW	7.5	10	12.5
	Heating	kW	9	12	16.5
EER/COP	W/W		2.14/2.73	2.27/2.73	2.19/2.71
Power supply	Ph/V/Hz		3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	3.5	4.4	5.7
	Heating	kW	3.3	4.4	5.3
Compressor	Type	—	Scroll	Scroll	Scroll
Quantity	—	—	1	1	1
Refrigerant charge volume	kg	3.10	3.55	4.50	5.00
Water flow volume	l/s	0.38	0.48	0.59	0.72
	GPM	5.00	6.30	7.79	9.50
Build-in chilled water pump	Pump power input	kW	0.55	0.55	0.55
	Delivery lift	m	18	18	18
Build-in expansion vessel volume	L	5	5	5	5
Chilled water outlet/inlet screw thread spec	inch	1"Female BSP	1"Female BSP	1"Female BSP	1"Female BSP
Indoor unit	Sound pressure level	dB(A)	38	38	38
	Dimension (W×D×H)	mm	1100×450×288	1100×450×288	1100×450×288
	Packaged	mm	1285×682×385	1285×682×385	1285×682×385
	Net weight/Gross weight	kg	84/96	84/96	84/96
Outdoor unit	Sound pressure level	dB(A)	60	60	60
	Dimension (W×D×H)	mm	950×412×840	950×412×1250	950×412×1250
	Packaged	mm	1110×450×988	1110×450×1385	1110×450×1385
	Net weight/Gross weight	kg	90/100	112/123	115/129
Outer diameter of connection pipe	Liquid pipe inch/mm	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)	φ1/2(12.7)
	Gas pipe inch/mm	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)
Loading quantity	40'GP/40'HQ	set	52/52	63/64	63/64
Standard controller	Wired	—	Z16301	Z16301	Z16301

Note:  
The specification is tested under the connection pipe of 7.5 meters.

## Integral type

Model	Heat pump	HLR22SNa-M	HLR25SNa-M	HLR35SNa-M	HLR44SNa-M	HLR35SM/NBa-M
Capacity	Cooling	kW	21.5	22.8	31	31
	Heating	kW	25	25	49	36
EER/COP	W/W		2.50/2.91	2.59/2.81	2.61/3.00	2.30/2.60
Power supply	Ph/V/Hz		3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50
Power input	Cooling	kW	8.6	8.8	11.9	11.9
	Heating	kW	8.6	8.9	12.5	12.5
Compressor	Type	—	Scroll	Scroll	Scroll	Scroll
Quantity	—	—	2	2	2	2
Refrigerant charge volume	kg	3.6×2	4.8×2	6.5×2	7.3×2	6.5×2
Water flow volume	l/s	0.92	1.2	1.4	2.2	—
	GPM	4.06	5.29	6.17	9.7	—
Build-in chilled water pump	Pump power input	kW	0.75	0.75	1.50	1.50
	Delivery lift	m	22	24	25	27
Build-in expansion vessel volume	L	8	5	8	8	—
Chilled water outlet/inlet screw thread spec	inch	1"Female BSP	1"Female BSP	1-1/2"Female BSP	1-1/2"Female BSP	1-1/2"Female BSP
Sound pressure level	dB(A)	66	66	68	66	68
Dimension (W×D×H)	Outline	mm	1460×530×1850	1460×530×1850	1750×800×1760	1750×800×1760
	Packaged	mm	1540×710×2100	1540×710×2100	1910×960×1970	1910×960×1970
Net weight/Gross weight	kg	380/387	380/392	680/690	765/765	600/610
Loading quantity	40'GP/40'HQ	set	25/25	25/25	12/12	12/12
Standard controller	Wired	—	Z12301A	Z12301A	Z26301C	Z26301C

## Modular Air-cooled Scroll Chiller

It is a kind of air-cooled scroll chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for civil or industrial buildings.

## D Series



- Golden fin condenser
- Inner groove copper
- Modular structure
- Comprehensive protection
- Self-diagnosis
- Easier maintainability
- Memory function
- 24 hour timer

- Running condition real-time display.
- Low start-up current thanks to power delay control design.
- Use U-type heat exchange tube to improve the heat-exchange efficiency of the complete unit;
- Special equalizing plate design of shell and tube: the distribution of refrigerant is more even for improving the heat-exchanging efficiency of the complete unit.
- Main module patent: any unit can be set as main module via wired controller.
- Up to 16 units (60/71kW) or 8 units (120/145kW) can be integrated freely to get a max capacity of 1160kW thanks to modular design.
- Auto anti-freezing function under heating mode when the unit is switched off.

\*: This photo is for reference only.



Item	Water side (water temperature)			Air side (outdoor temperature)		
	Nominal operating condition	Operating range		Nominal operating condition	Operating range	
	inlet(°C)	Outlet(°C)	Outlet(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~6	35	—
Heating	40	45	40~50	2.5~6	7	8

Model	Heat pump	LSCWRF1ESM/Na-D-H LSCWRF1SM/Na-D-H LSCWRF13M/Na-D-H LSCWRF16M/Na-D-H LSCWRF24M/Na-D-H LSCWRF32M/Na-D-H LSCWRF48M/Na-D-H								
Capacity	Cooling/Heating	kW	60/65	71/79.5	120/130	145/170	235/260	300/330	360/390	
	RT	17.06/18.51	20.22/22.64	34.17/37.02	41.29/48.41	66.91/74.03	85.42/93.96	102.51/111		
Capacity steps	%	0~50%~100%		0~25%~50%~75%~100%		0~25%~50%~100%				
EER/COP	W/W	2.84/3.09	2.76/2.94	2.84/2.93	2.74/3.04	2.72/3.02	2.71/3.0	2.72/3.02		
Power supply	V/Ph/Hz	380V~3Ph~50Hz						380V~415V~3Ph~50Hz		
Power input	Cooling	kW	21.1	25.7	42.3	53	86	107.5	129	
	Heating	kW	21	27	44.4	58	86.7	108.5	130.1	
Compressor	Type	—	Constant Speed Scroll							
Starting mode	—	Direct Starting								
Quantity	—	2	2	4	4	4	5	6		
Water side heat exchanger	Type	—	High-efficient shell and tube heat exchanger							
Water flow volume	l/s	2.87	3.39	5.73	6.93	11.2	14.3	17.2		
	GPM	37.91	44.78	75.69	91.55	147.95	188.9	227.21		
Pressure drop	kPa	15	20	30	35	65	70	80		
	ft.WG	4.92	6.56	9.84	11.48	21.32	22.96	26.24		
Connection pipe	—	DN65		DN80		DN100				
Air side heat exchanger	Type	—	Aluminum Fin-copper Tube							
Fan type and quantity	—	Axial-flow/2	Axial-flow/2	Axial-flow/4	Axial-flow/8	Axial-flow/10	Axial-flow/12			
Total fan air flow	l/s	2×0.375×10 <sup>4</sup>	2×0.4167×10 <sup>4</sup>	4						

# SCREW CHILLER

**Modular Air-cooled Screw Chiller**  
**Water-cooled Screw Chiller**



# Modular Air-cooled Screw Chiller

It is a kind of air-cooled screw chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for civil or industrial buildings.



230kW



330kW



430kW

Display panel  
Z2F3M

600kW



900kW



\*: Photos are for reference only.

- The compressor adopts stepless capacity control, which matches perfectly with actual load.
- Throttling by electronic expansion valve with more accurate control and more rapid adjustment to ensure the best running status of the system.
- Unique extend performance: flexible combination in different models, 4 modules for each system and the cooling capacity can reach 1680kW.
- High efficient oil separator with the efficiency of 99.97%, which greatly improves the reliability of the unit.
- Oil supply is done with the oil pump for the heat pump unit, which can effectively prevent oil supply failure at the low pressure difference of the compressor or during defrosting and thus enhance the operation reliability of the unit.
- The heat pump's economizer design will help to remarkably enhance the heating capacity and EER at low ambient temperature.
- Equipped with perfect protection function to ensure safe running.
- With multiple freeze prevention, can prevent shell and tube heat exchanger from freezing up when the unit is running, powered off or in malfunction condition.



Item	Water side (water temperature)			Air side (outdoor temperature)			
	Nominal operating condition		Operating range	Nominal operating condition		Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	ΔT difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	18~52
Heating	40	45	40~50	2.5~8	7	6	-15~24

Model	Cooling only		LSBLGF230MT3/NbA-M <sup>1</sup>	LSBLGRF230MT3/NbA-M <sup>1</sup>	LSBLGF330MT3/NbA-M <sup>1</sup>	LSBLGRF330MT3/NbA-M <sup>1</sup>	LSBLGRF430MT3/NbA-M
	Cooling/Heating*	kW					
Capacity	Cooling/Heating*	kW	220/245	63/70	320/355	91/101	420/450
Capacity steps	%		25, 50~100		25, 50~100		119/128
EER/COP*	W/W		2.72/2.88		2.67/2.91		2.68/2.92
Power supply	Ph/V/Hz		3/380/50		3/380/50		3/380/50
Power input	Cooling	kW	81		120		158
	Heating*	kW	85		122		154
Compressor	Type		semi-hermetic screw		semi-hermetic screw		semi-hermetic screw
	Starting mode		Star Delta Start		Star Delta Start		Star Delta Start
	Quantity		1		1		1
Water side heat exchanger	Type		Dry expansion evaporator		Dry expansion evaporator		Dry Expansion Evaporator
	Water flow volume	m <sup>3</sup> /h	37.8		55.0		72.2
	Pressure drop	kPa	≤50		≤50		≤50
	Connection pipe	ft.WG	≤16.4		≤16.4		≤16.4
Air side heat exchanger	Type		Aluminum Fin-copper Tube		Aluminum Fin-copper Tube		Aluminum Fin-copper Tube
	Fan type and quantity		axial×6		axial×8		axial×10
	Total fan air flow	m <sup>3</sup> /h	12×10 <sup>4</sup>		16×10 <sup>4</sup>		20×10 <sup>4</sup>
	Total fan motor power	kW	70634		94179		117724
Sound pressure level	dB(A)		78		79		80
Dimension	Outline(W×D×H)	mm	4000×2250×2550		5000×2250×2550		6000×2250×2550
	Package(W×D×H)	mm	4080×2330×2550		5080×2330×2550		6080×2330×2550
Net/Gross/Operating weight	Cooling only	kg	3860/3880/4246		4870/4990/5467		-
	Heat pump	kg	4020/4040/4422		5270/5290/5797		5950/5970/6545
Loading quantity	40GP/40HQ	set	0/2		0/2		0/1

Model	Cooling only		LSBLGF430MT3/NbA-M <sup>1</sup>	LSBLGF600MT3/NbA-M <sup>1</sup>	LSBLGF900MT3/NbA-M
	Cooling/Heating*	kW			
Capacity	Cooling/Heating*	kW	420/450	570	880
	RT		119/128	162/-	250/-
Capacity steps	%		25, 50~100	12.5, 25~100	12.5, 25~100
EER/COP*	W/W		2.8	2.65	2.80
Power supply	Ph/V/Hz		3/380/50	3/380/50	3/380/50
Power input	Cooling	kW	150	215	314
	Heating*	kW	-	-	-
Compressor	Type		Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
	Starting mode		Star Delta Start	Star Delta Start	Star Delta Start
	Quantity		1	2	2
Water side heat exchanger	Type		Dry Expansion Evaporator	Dry Expansion Evaporator	Dry Expansion Evaporator
	Water flow volume	m <sup>3</sup> /h	72.2	98.0	151.4
	Pressure drop	kPa	≤50	≤65	≤67
	Connection pipe	ft.WG	≤16.4	≤21.32	≤24.60
Air side heat exchanger	Type		Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
	Fan type and quantity		axial×10	axial×12	axial×16
	Total fan air flow	m <sup>3</sup> /h	20×104	264000	352000
	Total fan motor power	kW	117724	70634	94179
Sound pressure level	dB(A)		80	82	84
Dimension	Outline(W×D×H)	mm	6000×2250×2550	7450×2250×2550	9620×2250×2550
	Package(W×D×H)	mm	6080×2330×2550	7530×2330×2550	9700×2330×2550
Net/Gross/Operating weight	kg		5600/5620/6160	8080/8100/8888	11400/11480/12540
Loading quantity	40GP/40HQ	set	0/1	0/1	0/1

Note: EER/COP Applicable Standard: Eurovent

\* Only available for heat pump model.

<sup>1</sup>: This series are certified by Eurovent and AHRI.

<sup>2</sup>: This serie is certified by Eurovent, AHRI and CE.

Item	Water side (water temperature)			Air side (outdoor temperature)			
	Nominal operating condition		Operating range	Nominal operating condition		Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	ΔT difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5~15	2.5~8	35	-	18~52
Heating	40	45	40~50	2.5~8	7	6	-15~24

# High-efficiency Modular Air-cooled Screw Chiller

It is a kind of High-efficiency air-cooled screw chiller that can be connected to all sorts of fan coil unit to realize cooling/heating for civil or industrial buildings.



320/420/500/580MH/NbA-M



650/750/860/950MH/NbA-M



1050/1160/1320/1520MH/NbA-M

Note: Photos are for reference only.

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- Thanks to V type fin structure, unit features small refrigerant pressure loss and high efficiency.
- With flooded type shell-and-tube design, evaporating temperature is increased, hence improving the heat exchanging efficiency and energy efficiency.
- Unit adopts low noise fan blades and specialized compressor noise reduction device, therefore sound level is at least 5dB(A) lower than the 2nd generation.
- Due to the totally-enclosed design, its appearance is harmonious and nice-looking.

R134a

Model	Cooling only		LSBLGF520 MH/NbA-M*	LSBLGF420 MH/NbA-M*	LSBLGF500 MH/NbA-M*	LSBLGF580 MH/NbA-M*	LSBLGF650 MH/NbA-M*	LSBLGF750 MH/NbA-M*
	Cooling	kW						
Capacity	Cooling	kW	320	420	500	580	650	750
Capacity steps	RT	kW	91.0	119.4	142.2	164.9	184.8	213.3
EER/COP*	%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,50%-100%	25%,25%-100%	25%,25%-100%
Power supply	W/W	3.20	3.23	3.27	3.28	3.25	3.26	
Power input	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50
Compressor	Cooling	kW	100	130	153	177	200	230
	Heating*	kW	/	/	/	/	/	/
	Type	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Starting mode	-	-	Star Delta Start	Star Delta Start	Star Delta Start	Star Delta Start	Star Delta Start	Star Delta Start
Quantity	-	-	1	1	1	1	2	2
Water side heat exchanger	Type	-	Flooded Evaporator					
	Water flow volume	m³/h	55.0	72.2	88.0	98.8	111.8	129.0
	GPM	243	319	379	440	493	569	
	Pressure drop	kPa	≤50	≤50	≤55	≤60	≤60	≤60
	ft.WG	≤16.4	≤16.4	≤18.04	≤19.68	≤19.68	≤19.68	≤19.68
	Connection pipe	-	DN100	DN125	DN125	DN150	DN150	DN150
Air side heat exchanger	Type	-	Aluminum Fin-copper Tube					
	Fan type and quantity	-	axial×6	axial×8	axial×10	axial×12	axial×12	axial×14
	Total fan air flow	m³/h	120000	160000	200000	240000	240000	280000
	CFM	70634	94179	117724	141268	141268	164813	
	Total fan motor power	kW	1.5×8	1.5×8	1.5×10	1.5×12	1.5×12	1.5×14
Sound pressure level	dB(A)	77	78	79	81	82	82	82
Dimension	Outline(W×D×H)	mm	3680X2250X2500	4880X2250X2500	6100X2250X2500	7320X2250X2500	7320X2250X2500	8540X2250X2500
	Package(W×D×H)	mm	3700X2250X2550	4920X2250X2550	6140X2250X2550	7360X2250X2550	7360X2250X2550	8580X2250X2550
Net/Gross/Operating weight	kg	3650/3690/4015	4650/4690/5115	5550/5590/6105	6450/6490/7095	7250/7290/7975	8350/8390/9185	
Loading quantity	40GP/40HQ	set	0/2	0/2	0/1	0/1	0/1	0/1

Model	Cooling only		LSBLGF860 MH/NbA-M*	LSBLGF950 MH/NbA-M*	LSBLGF1050 MH/NbA-M*	LSBLGF1160 MH/NbA-M*	LSBLGF1320 MH/NbA-M*	LSBLGF1520 MH/NbA-M*
	Cooling	kW						
Capacity	RT	kW	860	950	1050	1160	1320	1520
Capacity steps	%	12.5%,25%-100%	12.5%,25%-100%	12.5%,25%-100%	8.3%,16.7%-100%	12.5%,25%-100%	6.25%,12.5%-100%	
EER/COP*	W/W	3.41	3.39	3.28	3.31	3.34	3.38	
Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50
Power input	Cooling	kW	252	280	320	350	385	450
	Heating*	kW	/	/	/	/	/	/
Compressor	Type	-	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw	Semi-hermetic screw
Starting mode	-	-	Star Delta Start	Star Delta Start	Star Delta Start	Star Delta Start	Star Delta Start	Star Delta Start
Quantity	-	-	2	2	2	3	4	4
Water side heat exchanger	Type	-	Flooded Evaporator					
	Water flow volume	m³/h	147.9	163.4	180.6	199.5	227.0	261.4
	GPM	652	720	796	880	1001	1153	
	Pressure drop	kPa	≤70	≤70	≤80	≤85	≤100	≤100
	ft.WG	≤22.96	≤22.96	≤22.96	≤24.6	≤26.24	≤26.24	≤26.24
	Connection pipe	-	DN200	DN200	DN200	DN200	DN200	DN200
Air side heat exchanger	Type	-	Aluminum Fin-copper Tube					
	Fan type and quantity	-	axial×16	axial×18	axial×20	axial×22	axial×24	axial×28
	Total fan air flow	m³/h	320000	360000	400000	440000	480000	560000
	CFM	188358	211902	235447	258892	282536	329628	
	Total fan motor power	kW	1.5×16	1.5×18	1.5×20	1.5×22	1.5×24	1.5×28
Sound pressure level	dB(A)	83	83	84	84	85	85	85
Dimension	Outline(W×D×H)	mm	9760X2250X2500	10980X2250X2500	12200X2250X2500	13420X2250X2500	14640X2250X2500	17080X2250X2500
	Package(W×D×H)	mm	9800X2250X2550	11020X2250X2550	12240X2250X2550	13460X2250X2550	14680X2250X2550	17120X2250X2550
Net/Gross/Operating weight	kg	9550/9590/10505	10650/10690/11715	11750/11830/12925	13000/13080/14300	14750/14830/16225	16950/17030/18645	
Loading quantity	40GP/40HQ	set	0/1	0/1	0/0	0/0	0/0	0/0

Note: \* This product is under development. The parameters are estimated, please refer to the value on the nameplate.

Item	Water side (water temperature)			Air side (outdoor temperature)			
	Nominal operating condition		Operating range	Nominal operating condition		Operating range	
	Inlet(°C)	Outlet(°C)	Outlet(°C)	VI difference(°C)	DB(°C)	WB(°C)	DB(°C)
Cooling	12	7	5-15	2.5-8	35	—	18-52
Heating	40	45	45-50	2.5-8	7	6	-15-24

# Water-cooled Screw Chiller

It is a kind of water-cooled screw chiller with flooded screw compressor that can be connected to all sorts of fan coil unit to realize cooling for large civil or industrial buildings.



Display panel  
Z2G1DJ01



Comprehensive protection



Self-diagnosis



Memory function



Easier maintainability



24 hour timer



Long-distance monitoring

- Precision water temperature control thanks to stepless capacity adjustment from 25%~100%.(single comp.) or 12.5%~100%(dual comp.).
- Higher heat exchange efficiency thanks to flooded evaporating method.
- Higher efficiency under partial load thanks to paralleling operation design.
- High reliability oil return technology to avoid compressor damage from oil lack.
- Precision and stable volume adjusting thanks to orifice plus EXV throttle method.
- Automatic operation and energy saving operation makes an easier management.



Operating condition of nominal cooling (water temperature)								Operating range (water temperature)							
Chilled water				Cooling water				Chilled water				Cooling water			
Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	Inlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	
12	7	30	35	4-15	2.5-8	18-35	3.5-8								
Model	LSBLG100H/Nb-M	LSBLG210H/Nb-M	LSBLG240H/Nb-M	LSBLG300H/Nb-M	LSBLG340H/Nb-M	LSBLG380H/Nb-M									
Cooling capacity	kW	175	202	231	292	331	376								
Capacity steps	RT	49.76	57.44	65.89	83.03	94.12	106.92								
EER	%	25-100	25-100	25-100	25-100	25-100	25-100								
IPLV	WW	5.00	5.05	5.13	5.21	5.25	5.30								
Power supply	Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50								
Power input	kW	35	40	45	56	63	71								
RLA	A	68.4	77.2	77.2	102.5	117.9	117.9								
LRA	A	290A D/485A DD	350A D/585A DD	350A D/585A DD	520A D/801A DD	612A D/943A DD	612A D/943A DD								
Compressor	Type	Semi-hermetic twin screw comp.													
Starting mode	-	Part winding start													
Quantity	-	1	1	1	1	1	1								
Refrigerant charge volume	kg	100	100	100	110	120	130								
Refrigeration oil	Type	BSE170	BSE170	BSE170	BSE170	BSE170	BSE170								
Charge volume	L	15	15	15	19	19	19								
Evaporator	Type	Flooded Evaporator	Flooded Evaporator	Flooded Evaporator	Flooded Evaporator	Flooded Evaporator	Flooded Evaporator								
Fouling factor	m <sup>2</sup> /°c/kW	0.086	0.086	0.086	0.086	0.086	0.086								
Water flow volume	m <sup>3</sup> /h	30	35	40	50	57	65								
	GPM	132	154	176	220	251	287								
Pressure drop	kPa	40	45	50	60	60	62								
	ft.WG	13.12	14.76	16.40	19.68	19.68	20.34								
Connection pipe	-	DN100	DN100	DN100	DN125	DN125	DN125								
Condenser	Type	shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube								
Fouling factor	m <sup>2</sup> /°c/kW	0.086	0.086	0.086	0.086	0.086	0.086								
Water flow volume	m <sup>3</sup> /h	38	43	50	63	71	81								
	GPM	168	190	220	278	313	357								
Pressure drop	kPa	56	57	65	65	66	67								
	ft.WG	18.37	18.70	21.32	21.32	21.85	21.98								
Connection pipe	-	DN100	DN100	DN100	DN125	DN125	DN125								
Sound pressure level	dB(A)	76.2	76.6	77.4	80.1	81.2	83.3								
Outline dimension (WxDxH)	mm	3160×1150×1587	3160×1150×1587	3160×1150×1587	3160×1400×1680	3160×1400×1680	3160×1400×1720								
Net/Gross/Operating weight	kg	1800/1850/1890	1900/1950/1995	2100/2150/2205	2800/2850/2940	2900/2950/3045	3100/3150/3255								
Loading quantity	40GP/40HQ	set	3/3	3/3	3/3	3/3	3/3								

Model	LSBLG450H/Nb-M	LSBLG500H/Nb-M	LSBLG580H/Nb-M	LSBLG640H/Nb-M	LSBLG680H/Nb-M	LSBLG760H/Nb-M
Cooling capacity	kW	442	495	572	636	676
	RT	125.69	140.76	162.65	180.85	192.23
Capacity steps	%	25-100	25-100	25-100	25-100	25-100
EER	WW	5.33	5.32	5.35	5.30	5.37
IPLV	WW	6.09	6.08	5.87	5.85	6.01
Power supply	Ph/V/Hz	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50	3/380-415/50
Power input	kW	83	93	107	120	126
RLA	A	136.5	154.3	189.6	199.4	102.5
LRA	A	318A Y/1182A D	436A Y/1364A D	465A Y/1442A D	586A Y/1853A D	520A D/801A DD
						Semi-hermetic twin screw comp.
Compressor	Type	-	-	-	-	-
Starting mode	-	-	-	-	-	Y-△
Quantity	-	1	1	1	1	2
Refrigerant charge volume	kg	210	210	210	200	240
Refrigeration oil	Type	BSE170	BSE170	BSE170	BSE170	BSE170
Charge volume	L	35	35	35	35	19
Evaporator	Type	Flooded Evaporator				
Fouling factor	m <sup>2</sup> /°c/kW	0.086	0.086	0.086	0.086	0.086
Water flow volume	m <sup>3</sup> /h	76	85	98	109	116
	GPM	335	375	432	481	511
Pressure drop	kPa	64	66	68	74	78
	ft.WG	20.99	21.65	22.30	24.27	24.93
Connection pipe	-	DN150	DN150	DN150	DN150	DN200
Condenser	Type	shell and tube				
Fouling factor	m <sup>2</sup> /°c/kW	0.086	0.086	0.086	0.086	0.086
Water flow volume	m <sup>3</sup> /h	150	170	197		

# CENTRIFUGAL CHILLER

Centrifugal Chiller( Fix-frequency)

Inverter Centrifugal Chiller

Magnetic Suspension Inverter Centrifugal Chiller



# Centrifugal Chiller [ Fix-frequency ]

It is a kind water-cooled chiller with centrifugal compressor that can be connected to all sorts of fan coil unit to realize cooling for large civil or industrial buildings.



Touch Screen  
CM27-GM12/A2(M)



Quiet function



Comprehensive protection



Memory function



Long-distance monitoring

R134a

- Precision water temperature control thanks to stepless capacity adjustment from 10%~100%.
- Higher reliability and less maintenance cost thanks to 3D-covered impeller.
- Lower noise and less vibration thanks to variable cross-section diffuser technology.
- Higher compressor reliability thanks to keyless connection technology.
- Urgent oil providing system to avoid compressor damage when sudden power failure occurs.
- Orifice throttle makes a steady flow volume adjustment.
- Multilevel password protection makes the operation controllable and reliable.
- Adjustable water outlet temperature according to various project requirement.
- Thanks to special refrigerant loop to cool the lubricant, no field oil cooling water pipe or external connection lubricant cooling system is needed.
- Inverter models are optional.



Operating condition of nominal cooling (water temperature)				Operating range (water temperature)			
Chilled water		Cooling water		Chilled water		Cooling water	
Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	I/O difference(°C)
12.2	6.7	29.4	34.9	8~15	2.5~11	16~35	3.5~11

## Single-stage

Model	L8BLX1400-M	L8BLX1600-M	L8BLX1800-M	L8BLX2000-M	L8BLX2200-M	L8BLX2400-M	
Cooling capacity	kW	1400	1600	1800	2000	2200	2400
RT	398	456	511	562	625	682	
Capacity adjustment range	%	10~100	10~100	10~100	10~100	10~100	10~100
EER	W/W	5.51	5.61	5.77	5.81	5.91	5.91
IPLV	W/W	6.19	6.31	6.48	6.53	6.63	6.63
Power supply	-M	Ph/V/Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz
	-G	Ph/V/Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz
Power input	kW	254	285	312	344	372	406
RLA	-M	A	438.6	492.1	538.7	593.9	642.3
	-G	A	16.7	18.7	20.5	22.6	24.4
Type	-						
Compressor							
Starting mode*	-						
Quantity	-						
Refrigerant charge volume	kg	330	360	600	625	650	700
Refrigeration oil	Type						
Charge volume	L	50	50	60	60	60	80
Evaporator	Type	-					
Fouling factor	m <sup>2</sup> /°C/kW	0.018	0.018	0.018	0.018	0.018	0.018
Water flow volume	L/s	60.3	68.9	77.5	86.1	94.7	103.3
GPM	955	1092	1228	1365	1501	1638	
Pressure drop	kPa	75	75	75	75	75	90
ft.WG	25.1	25.1	25.1	25.1	25.1	30.1	
Connection pipe	-	200	200	250	250	250	250
Condenser	Type	-					
Fouling factor	m <sup>2</sup> /°C/kW	0.044	0.044	0.044	0.044	0.044	0.044
Water flow volume	L/s	75.4	86.2	97.0	107.8	118.6	129.3
GPM	1196	1367	1537	1708	1879	2050	
Pressure drop	kPa	70	70	70	70	70	85
ft.WG	23.4	23.4	23.4	23.4	23.4	28.5	
Connection pipe	-	200	200	250	250	250	250
Sound pressure level (Max.)	dB(A)	s88	s88	s88	s90	s90	s90
Dimension	Outline(WxDxH)	3630×1680×2060	3630×1680×2060	4150×1900×2250	4150×1900×2250	4150×1900×2250	4350×2070×2500
Package(WxDxH)	mm	3700×1750×2130	3700×1750×2130	4200×1970×2410	4200×1970×2410	4200×1970×2410	4650×2110×2660
Net/Gross/Operating weight	kg	6300/6500/6800	6600/6800/7100	8800/9000/9800	9200/9400/10200	9400/9600/10600	10800/11000/12800
Loading quantity	40GP/40HQ	set	0/2	0/2	0/2	0/2	0/0

Model	L8BLX2600-M	L8BLX2800-M	L8BLX3000-M	L8BLX3200-M	L8BLX3400-M	L8BLX3600-M	
Cooling capacity	kW	2600	2800	3000	3200	3400	3600
RT	740	796	854	909	967	1023	
Capacity adjustment range	%	10~100	10~100	10~100	10~100	10~100	10~100
EER	W/W	5.98	6.01	5.91	5.95	6.02	5.87
IPLV	W/W	6.7	6.73	6.64	6.68	6.75	6.59
Power supply	-M	Ph/V/Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz
	-G	Ph/V/Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz
Power input	kW	435	466	508	538	565	613
RLA	-M	A	751.1	804.6	877.1	928.9	975.5
	-G	A	28.5	30.6	33.3	35.3	37.1
Type	-						
Compressor							
Starting mode*	-						
Quantity	-						
Refrigerant charge volume	kg	725	750	775	800	825	900
Refrigeration oil	Type						
Charge volume	L	80	80	80	80	80	100
Evaporator	Type	-					
Fouling factor	m <sup>2</sup> /°C/kW	0.018	0.018	0.018	0.018	0.018	0.018
Water flow volume	L/s	111.9	120.6	129.2	137.8	146.4	155.0
GPM	1774	1911	2047	2184	2320	2457	
Pressure drop	kPa	90	90	90	90	90	115
ft.WG	30.1	30.1	30.1	30.1	30.1	38.5	
Connection pipe	-	250	250	300	300	300	300
Condenser	Type	-					
Fouling factor	m <sup>2</sup> /°C/kW	0.044	0.044	0.044	0.044	0.044	0.044
Water flow volume	L/s	140.1	150.9	161.7	172.4	183.2	194.0
GPM	2221	2392	2562	2733	2904	3075	
Pressure drop	kPa	85	85	85	85	85	100
ft.WG	28.5	28.5	28.5	28.5	28.5	33.5	
Connection pipe	-	250	250	300	300	300	350
Sound pressure level (Max.)	dB(A)	590	590	590	592	592	592
Dimension	Outline(WxDxH)	4350×2070×2500	4350×2070×2500	4530×2070×2500	4530×2120×2500	4530×2120×2500	4750×2330×2750
Package(WxDxH)	mm	4650×2110×2660	4650×2110×2660	4650×2160×2660	4650×2160×2660	5000×2340×2910	
Net/Gross/Operating weight	kg	11200/11400/13000	11600/11800/13200	11800/12000/13500	12000/12200/		

Model		LSBLX3800-M LSBLX3800-G	LSBLX4000-M LSBLX4000-G	LSBLX4400-M LSBLX4400-G	LSBLX4800-G	LSBLX5200-G
Cooling capacity	kW	3800	4000	4400	4800	5200
Capacity adjustment range	RT	1081	1136	1251	1364	1479
EER	W/W	5.91	5.98	5.93	5.99	6.08
IPLV	W/W	6.63	6.71	6.66	6.73	6.83
Power supply	-M	Ph/V/f/Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	3Ph,380V,50Hz	—
	-G	Ph/V/f/Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz	3Ph,1000V,50Hz
Power input	kW	643	669	742	801	855
RLA	-M	A	1110.2	1155.1	1281.1	—
	-G	A	42.2	43.9	48.7	52.6
Compressor	Type	—	Semi-hermetic Centrifugal Compressor			
	Starting mode*	—	Star-delta			
Refrigerant charge volume	kg	925	950	1000	1050	1100
Refrigeration oil	Type	—	No.68 synthetic fatty oil			
Charge volume	L	100	100	100	100	100
Evaporator	Type	—	Flooded Shell and Tube			
	Fouling factor	m <sup>2</sup> ·°C/kW	0.018	0.018	0.018	0.018
	Water flow volume	L/s	163.6	172.2	189.4	206.7
		GPM	2593	2730	3003	3276
	Pressure drop	kPa	115	115	115	115
	Connection pipe	ft WG	38.5	38.5	38.5	38.5
Condenser	Type	—	Shell and Tube			
	Fouling factor	m <sup>2</sup> ·°C/kW	0.044	0.044	0.044	0.044
	Water flow volume	L/s	204.8	215.8	237.1	258.7
		GPM	3246	3417	3758	4100
	Pressure drop	kPa	100	100	105	105
	Connection pipe	ft WG	33.5	33.5	35.2	35.2
Sound pressure level (Max.)	dB(A)	s92	s92	s92	s95	s95
Dimension	Outline(WxDxH)	mm	4750×2330×2750	4750×2330×2750	4750×2480×2750	4750×2480×2750
	Package(WxDxH)	mm	5000×2340×2910	5000×2340×2910	5000×2490×2910	5000×2490×2910
Net/Gross/Operating weight	kg	14800/15000/17000	15200/15400/17500	15800/16000/18000	16200/16400/18500	16600/16800/19000
Loading quantity	40GP/40HQ	set	0/0	0/0	0/0	0/0

## Two-stage

Model		LSBLX5600S-G	LSBLX6000S-G	LSBLX6400S-G	LSBLX6800S-G	LS9LX7200S-G
Cooling capacity	kW	5600	6000	6400	6800	7200
Capacity adjustment range	RT	1581	1706	1818	1934	2044
EER	W/W	6.06	6.12	6.15	6.16	6.21
IPLV	W/W	6.80	6.87	6.91	6.92	6.97
Power supply	Ph/V/f/Hz	—	3Ph,1000V,50Hz			
Power input	kW	924	980	1041	1104	1160
RLA/LRA	A	60.6	64.3	68.3	72.4	76.1
Compressor	Type	—	Semi-hermetic Centrifugal Compressor			
	Starting mode	—	Direct start			
Refrigerant charge volume	kg	1500	1600	1700	1800	1900
Refrigeration oil	Category	—	No.68 synthetic fatty oil			
Charge volume	L	125	125	125	125	125
Evaporator	Type	—	Flooded Shell and Tube			
	Fouling factor	m <sup>2</sup> ·°C/kW	0.018	0.018	0.018	0.018
	Water flow volume	L/s	241.1	258.3	275.6	292.8
		GPM	3822	4086	4388	4641
	Pressure drop	kPa	125	125	125	125
	Connection pipe	ft WG	41.0	41.0	41.0	41.0
Condenser	Type	—	Shell and Tube			
	Fouling factor	m <sup>2</sup> ·°C/kW	0.044	0.044	0.044	0.044
	Water flow volume	L/s	301.8	323.3	344.9	366.4
		GPM	4783	5125	5466	5808
	Pressure drop	kPa	125	125	125	125
	Connection pipe	ft WG	41.0	41.0	41.0	41.0
Sound pressure level (Max.)	dB(A)	s96	s95	s95	s95	s95
Dimension	Outline(WxDxH)	mm	5350×2620×3100	5350×2620×3100	5350×2820×3100	5350×2820×3100
	Package(WxDxH)	mm	5800×2630×3260	5800×2630×3260	5800×2830×3260	5800×2830×3260
Net/Gross/Operating weight	kg	22500/22700/25950	23800/24000/27500	25500/25700/29450	26100/26300/30200	26500/26700/31000
Loading quantity	40GP/40HQ	set	0/0	0/0	0/0	0/0

Note: \* The starting mode of star-delta is applicable for the models with suffix "-M", while the starting mode of direct-start is applicable with the suffix "-G".

## Inverter Centrifugal Chiller

The inverter centrifugal chiller adopts high-efficiency DC inverter centrifugal compressor with internationally leading coefficient of performance. It provides high-efficiency and stable operation, and can be connected to all sorts of fan coil unit to realize cooling for large civil and industrial buildings.



- It adopts high-efficiency motor driving two-stage impellers with simpler structure and more reliable operation. The size and weight of compressor is only 40% of the conventional compressor with the same cooling capacity.
- It adopts high-efficiency permanent magnet synchronous inverter motor, whose power is over 400kW and rotation speed is over 18000rp. Meanwhile, the helical refrigerant ejecting cooling technology is adopted to ensure high-efficiency operation of the motor.
- The design of impeller and diffuser is optimized for the load of 25-100%, achieving high-efficiency operation of compressor in various loads.
- It adopts patented sensor control technology to control the position of motor precisely and improve the reliability.
- It adopts the unique low solidity diffuser to achieve high-efficiency recycle of pressure.
- Two-stage compression technology is adopted to improve efficiency by 5~6% compared with one-stage cooling circulation system.
- User-friendly touch screen is adopted for convenient operation, precise control and stable output.

Operating condition of nominal cooling (water temperature)			Operating range (water temperature)					
Chilled water		Cooling water	Chilled water		Cooling water			
Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	Outlet(°C)	I/O difference(°C)
12.2	6.7	29.4	34.9	5-15	2.5-11	16-35	3.5-11	

Model		LSBLX250SVE	LSBLX275SVE	LSBLX300SVE	LSBLX350SVE	LSBLX400SVE	LSBLX450SVE
Cooling capacity	kW	660	967	1055	1231	1406	1582
RT	250	275	300	350	400	450	
Capacity adjustment range	%	10-100	10-100	10-100	10-100	10-100	10-100
EER	W/W	5.99	6.01	6.03	6.12	6.22	6.25
iPLV	W/W	9.94	9.96	10.01	10.18	10.34	10.43
Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50
Power input	kW	147	161	175	201	226	253
RLA	A	225.6	247.1	268.6	308.6	346.6	388.3
Compressor	Type	-	Semi-hermetic centrifugal compressor				
Starting mode	-	Variable Frequency Drives					
Quantity	-	1	1	1	1	1	
Refrigerant charge volume	kg	350	375	400	425	450	550
Refrigerant oil	Type	-	No.68 synthetic fatty oil				
Charge volume	L	25	26	25	30	30	45
Evaporator	Type	-	Flooded type evaporator				
Fouling factor	m <sup>2</sup> .°C/kW	0.018	0.018	0.018	0.018	0.018	
Water flow volume	L/s	37.8	46.2	50.4	58.8	67.2	75.6
GPM	599.8	659.1	719	839	958.3	1078.2	
Pressure drop	kPa	60	60	60	60	60	
ft.WG	20	20	20	20	20	20	
Connection pipe	-	DN200	DN200	DN200	DN200	DN200	
Condenser	Type	-	Shell and tube				
Fouling factor	m <sup>2</sup> .°C/kW	0.044	0.044	0.044	0.044	0.044	
Water flow volume	L/s	47.5	57.7	63	73.5	84	94.5
GPM	763.2	827.7	903	1053.6	1203.4	1354.1	
Pressure drop	kPa	55	55	55	55	55	
ft.WG	18.3	18.3	18.3	18.3	18.3	18.3	
Connection pipe	-	DN200	DN200	DN200	DN200	N200	
Sound pressure level (Max.)	Db(A)	88	88	88	88	88	
Dimension	Outline(WxDxH)	3770x1580x1840	3770x1580x1840	3770x1580x1840	3650x1810x2000	3650x1810x2000	3650x1810x2000
Package(WxDxH)	mm	3900x1700x2000	3900x1700x2000	3900x1700x2000	3700x1900x2200	3700x1900x2200	3700x1900x2200
Net/Gross/Operating weight	Kg	5150/5600/5600	5250/5700/5700	5400/5850/6200	5500/5900/6400	5700/6100/6700	6100/6500/7200
Loading quantity	40GP/40HQ	set	0/0	0/0	0/0	0/0	0/0

Model		LSBLX800SVE	LSBLX850SVE	LSBLX900SVE	LSBLX950SVE	LSBLX1000SVE	LSBLX1100SVE
Cooling capacity	kW	2813	2989	3164	3340	3516	3666
RT	800	850	900	950	1000	1100	
Capacity adjustment range	%	10-100	10-100	10-100	10-100	10-100	10-100
EER	W/W	6.63	6.75	6.58	6.65	6.89	6.91
iPLV	W/W	11.08	11.23	10.95	11.08	11.68	11.68
Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50
Power input	kW	424	443	481	502	510	560
RLA	A	680.7	679.9	738.2	770.4	782.7	859.5
Compressor	Type	-	Semi-hermetic centrifugal compressor				
Starting mode	-	Variable Frequency Drives					
Quantity	-	1	1	1	1	1	
Refrigerant charge volume	kg	750	775	900	925	950	975
Refrigerant oil	Type	-	No.68 synthetic fatty oil				
Charge volume	L	50	50	50	50	50	50
Evaporator	Type	-	Flooded type evaporator				
Fouling factor	m <sup>2</sup> .°C/kW	0.018	0.018	0.018	0.018	0.018	
Water flow volume	L/s	134.4	142.8	151.2	159.6	168	184.8
GPM	1917.2	2037.2	2156.5	2276.4	2396.4	2636.3	
Pressure drop	kPa	75	75	100	100	100	115
ft.WG	25.1	25.1	33.5	33.5	33.5	38.5	
Connection pipe	-	DN250	DN250	DN300	DN300	DN300	DN300
Condenser	Type	-	Shell and tube				
Fouling factor	m <sup>2</sup> .°C/kW	0.044	0.044	0.044	0.044	0.044	
Water flow volume	L/s	168	178.5	189	199.5	210	231
GPM	2407.7	2558.3	2708.1	2858.8	3009.4	3310.7	
Pressure drop	kPa	70	70	85	85	85	105
ft.WG	23.4	23.4	28.5	28.5	28.5	35.2	
Connection pipe	-	DN250	DN250	DN300	DN300	DN300	DN300
Sound pressure level (Max.)	Db(A)	90	90	92	92	92	92
Dimension	Outline(WxDxH)	4250x2020x2300	4250x2020x2300	4580x2210x2430	4580x2210x2430	4580x2210x2430	4580x2210x2430
Package(WxDxH)	mm	4370x2050x2410	4370x2050x2410	4700x2350x2550	4700x2350x2550	4700x2350x2550	4700x2350x2550
Net/Gross/Operating weight	Kg	9500/10000/11000	9900/10400/11500	10000/10600/12000	10150/10750/122000	10500/111000/12700	11000/116000/13500
Loading quantity	40GP/40HQ	set	0/0	0/0	0/0	0/0	0/0

Model		LSBLX500SVE	LSBLX550SVE	LSBLX600SVE	LSBLX650SVE	LSBLX700SVE	LSBLX750SVE
Cooling capacity	kW	1758	1934	2110	2285	2461	2637
RT	500	550	600	650	700	750	
Capacity adjustment range	%	10-100	10-100	10-100	10-100	10-100	
EER	W/W	6.32	6.43	6.53	6.72	6.74	6.58
iPLV	W/W	10.55	10.69	10.88	11.2	11.22	10.95
Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	3/380/50	
Power input	kW	278	301	323	340	365	401
RLA	A	426.7	462	495.7	521.8	560.2	615.4
Compressor	Type	-	Semi-hermetic centrifugal compressor				
Starting mode	-	Variable Frequency Drives					
Quantity	-	1	1	1	1	1	
Refrigerant charge volume	kg	575	600	625	650	675	725
Refrigerant oil	Type	-	No.68 synthetic fatty oil				
Charge volume	L	45	45	45	45	45	50
Evaporator	Type	-	Flooded type evaporator				
Fouling factor	m <sup>2</sup> .°C/kW	0.018	0.018	0.018	0.018	0.018	
Water flow volume	L/s	84	92.4	100.8	109.2	117.6	126
GPM	1198.2	1318.1	1438.1	1557.4	1677.3	1797.3	
Pressure drop	kPa	60	60	75	75	75	
ft.WG	20	20	25.1	25.1	25.1		

# Magnetic suspension inverter centrifugal chiller(CC series)

Gree CC series magnetic suspension inverter centrifugal chiller adopts the magnetic suspension compressor for aeronautic industry, which achieves oil-free operation of cooling system, avoids complicated lubricant system and greatly improves system's reliability. This series can be widely adopted in hotels, office buildings, etc.



130/150RT



250/275/300RT

- Quiet function
- Comprehensive protection
- Memory function
- Long-distance monitoring

- It adopts magnetic bearing to achieve oil-free operation and reduce the heat exchange influence of lubricant
- The system adopts flooded heat exchange design and build-in subcooler in condenser
- Impellers directly driven by the motor with gearless design, improving the reliability of the system
- With advanced and reliable microcomputer control system, powerful group control modules and building communication interface
- User-friendly touch screen is adopted for convenient operation, precise control and stable output
- Multiple protection function
- Noise of the entire unit is lower than 70dB(A)



Model	LSBLX150SCE	LSBLX150SCE	LSBLX250SCE	LSBLX275SCE	LSBLX300SCE	
Cooling capacity	kW	457	528	879	967	
	RT	130	150	250	275	
Capacity adjustment range	%			10~100		
EER	WW	5.79	5.56	5.98	5.86	
IPLV	WW	10.3	10.16	10.5	10.42	
Power supply	Ph/V/Hz	3/380/50	3/380/50	3/380/50	3/380/50	
Power input	kW	79	95	147	165	
RLA	A	121.2	145.8	225.8	253.2	
Compressor	Type	-	Semi-hermetic centrifugal compressor			
	Starting mode	-	Variable Frequency Drives			
	Quantity	-	1	1	2	2
Refrigerant charge volume	kg	235	260	255	280	
Evaporator	Type	-	Flooded type evaporator			
	Fouling factor	m <sup>2</sup> .°C/kW	0.018	0.018	0.018	0.018
	Water flow volume	L/s	19.7	22.7	37.8	41.6
		GPM	311.5	359.9	599.1	659.1
	Pressure drop	kPa	65	65	75	75
	Connection pipe	ft.WG	21.7	21.7	25.1	25.1
Condenser	Type	-	DN150	DN150	DN150	DN150
	Fouling factor	m <sup>2</sup> .°C/kW	0.044	0.044	0.044	0.044
	Water flow volume	L/s	24.7	28.5	47.5	52.2
		GPM	391.2	451.9	752.4	827.7
	Pressure drop	kPa	60	60	70	70
	Connection pipe	ft.WG	20	20	20	20
Sound pressure level (Max.)	Db(A)	70	70	70	70	
Dimension	Outline(WxDxH)	mm	3000x1250x2000	3000x1250x2000	3800x1250x2000	3800x1250x2000
	Package(WxDxH)	mm	3100x1350x2100	3100x1350x2100	3900x1330x2080	3900x1330x2080
Net/Gross/Operating weight	Kg	2200/2500/2600	2200/2500/2600	3000/3250/3700	3000/3250/3700	3000/3250/3700
Loading quantity   40GP/40HQ	set	0/0	0/0	0/0	0/0	0/0

Operating condition of nominal cooling (water temperature)				Operating range (water temperature)					
Chilled water		Cooling water		Chilled water		Cooling water			
Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	Inlet(°C)	Outlet(°C)	I/O difference(°C)	Inlet(°C)	Outlet(°C)	I/O difference(°C)
12.2	6.7	29.4	34.9	5~15	2.5~11	2.5~11	16~35	3.5~11	3.5~11

## Control System Lineup

	Product series	Control system		Modular chiller	Screw chiller	Centrifugal chiller	Inverter Chiller	Magnetic suspension chiller(CC series)
		Split series	Integral series					
Chiller	Wired remote controller	Z16301						
	Z12301A							
	Z26301G							
	Z2F3M <sup>**</sup>							
	Z2G1DJ01 <sup>**</sup>							
	CM27-GM12/A2(M) CM18-GM8/A2(M)							
Long-distance monitoring software	Gree AC Eudemon 2009 <sup>**</sup>	FE30-00/A(M)						
	Communication module	ME30-28/E(M)						
	Optoelectronic isolated converter	RS232-RS422/485						
Other modules	Patch board	R5-422/485						
	Optoelectronic isolated signal multiplier	Z103						

### Note:

● means standard, ○ means optional.

<sup>\*\*</sup>1 With BMS(modbus) function.

<sup>\*\*</sup>2 BMS interface is equipped.

<sup>\*\*</sup>3 For air-cooled scroll chiller, if long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-28/E(M) shall be selected also.

The selection shall refer to actual models.

# TERMINAL

Fan Coil Unit  
Air Handling Unit  
Air Curtain  
Diffuser



# Fan Coil Unit

## Concealed Ceiling Type

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or residential use.



- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- Flexible air inlet/outlet directions, meet different installation requirements.
- Washable filter is optional when equipped with air return box.



Nominal test condition (temperature)					
Item	DB (°C)	WB (°C)	Inlet (°C)	Outlet (°C)	
Cooling	27	19.5	7	12	
Heating	21	—	60	—	

## 2 Rows/Standard Type\*

Model	FP-34WA-K	FP-51WA-K	FP-68WA-K	FP-85WA-K	FP-102WA-K	FP-118WA-K	FP-170WA-K	FP-204WA-K
Air flow volume(H/M/L)	CFM 200/146/125	300/232/155	400/291/194	500/375/250	600/464/309	800/644/429	1000/750/500	1200/926/618
ESP	Pa 12	12	12	12	12	12	12	12
Capacity	Cooling/Heating kW 1.8/3.05	2.8/4.4	3.6/5.5	4.5/7.0	5.5/8.9	7.35/11.0	9.2/14.0	11.0/17.0
Power system	Type Ph/V/Hz 1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W 37	45	62	70	96	120	145	185
Water system	Water flow volume l/s 0.1	0.14	0.17	0.21	0.27	0.6	0.45	0.5
Pressure drop	kPa Ft-WG 4	21	16	23	36	38	38	40
Sound pressure level	dB(A) 35	38	40	42	44	46	48	50
Dimension (W×D×H)	Outline mm 881×510×245	1011×510×245	1131×510×245	1211×510×245	1211×510×245	1761×510×245	1761×510×245	1761×510×245
Package	mm 900×560×275	1030×560×275	1150×560×275	1230×560×275	1230×560×275	1780×560×275	1780×560×275	1780×560×275
Net weight/Gross weight	kg 14/17	15/19.5	16.5/21	18/22	19/24	28.5/35	34/39	35/40
Connection pipe diameter	Water inlet & outlet (inner groove) inch(mm) Condensed water drain (outer groove) inch(mm)	ø3/4(19.05)						
40'GP/40HQ	set 448/490	447/482	344/386	316/355	316/355	220/247	220/247	220/247
Options	Wired remote controller Plenum with filter Plenum without filter	—	Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0	HF31	HF32	HF33	HF34	HF35
	—	HF41	HF42	HF43	HF44	HF45	HF46	HF49

## 2 Rows/High ESP Type\*

Model	FP-34WAH-K	FP-51WAH-K	FP-68WAH-K	FP-85WAH-K	FP-102WAH-K	FP-118WAH-K	FP-170WAH-K	FP-204WAH-K
Air flow volume(H/M/L)	CFM 200/146/125	300/232/155	400/291/194	500/375/250	600/464/309	800/644/429	1000/750/500	1200/926/618
ESP	Pa 30	30	30	30	30	30	30	30
Capacity	Cooling/Heating kW 1.8/3.05	2.8/4.4	3.6/5.5	4.5/7.0	5.5/8.9	7.35/11.0	9.2/14.0	11.0/17.0
Power system	Type Ph/V/Hz 1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W 42	55	68	80	102	140	158	195
Water system	Water flow volume l/s 0.1	0.14	0.17	0.21	0.27	0.6	0.45	0.5
Pressure drop	kPa Ft-WG 4	21	16	23	36	38	38	40
Sound pressure level	dB(A) 38	40	42	44	46	47	48	52
Dimension (W×D×H)	Outline mm 881×510×245	1011×510×245	1131×510×245	1211×510×245	1211×510×245	1761×510×245	1761×510×245	1761×510×245
Package	mm 900×560×275	1030×560×275	1150×560×275	1230×560×275	1230×560×275	1780×560×275	1780×560×275	1780×560×275
Net weight/Gross weight	kg 14/17	15/19.5	16.5/21	18/22	19/24	28.5/35	34/39	35/40
Connection pipe diameter	Water inlet & outlet (inner groove) inch(mm)	ø3/4(19.05)						
40'GP/40HQ	set 448/490	447/482	344/386	316/355	316/355	220/247	220/247	220/247
Options	Wired remote controller Plenum with filter Plenum without filter	—	Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0	HF31	HF32	HF33	HF34	HF35
	—	HF41	HF42	HF43	HF44	HF45	HF46	HF49

\*Note: Horizontal fan coil unit with air return can be added for option choice.

## 3 Rows\*

Model	FP-34WAS-R	FP-51WAS-R	FP-68WAS-R	FP-85WAS-R	FP-102WAS-R	FP-136WAS-R
Air flow volume(H/M/L)	CFM 200/146/125	300/232/155	400/291/194	500/375/250	600/464/309	800/644/429
ESP	Pa 30	30	30	30	30	30
Capacity	Cooling/Heating kW 2.19/3.29	3.37/5.06	4.28/6.42	5.04/7.56	6.46/9.70	8.17/10.90
Power system	Type Ph/V/Hz 1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W 44	59	72	87	108	156
Water system	Water flow volume l/s 0.11	0.17	0.22	0.25	0.32	0.37
Pressure drop	kPa Ft-WG 3.3	5	8.4	10	13.3	6.7
Sound pressure level	dB(A) 38	40	42	44	46	47
Dimension (W×D×H)	Outline mm 881×510×245	1011×510×245	1131×510×245	1211×510×245	1211×510×245	1761×510×245
Package	mm 900×560×275	1030×560×275	1150×560×275	1230×560×275	1230×560×275	1780×560×275
Net weight/Gross weight	kg 15/19	16/20.5	18/23	19.5/24.5	21/26	30/35
Connection pipe diameter	Water inlet & outlet (inner groove) inch(mm)	ø3/4(19.05)				
Condensed water drain (outer groove)	inch(mm)	ø3/4(19.05)				
Loading quantity	40'GP/40HQ set	448/490	392/434	344/386	316/355	268/301
Options	Wired remote controller Plenum with filter Plenum without filter	—	Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0	HF31	HF32	HF33
	—	HF41	HF42	HF43	HF44	HF45

Model	FP-170WAS-R	FP-204WAS-R	FP-238WAS-R	FP-272WAS-R	FP-306WAS-R	FP-340WAS-R
Air flow volume(H/M/L)	CFM 1000/750/500	1200/926/618	1400/971/729	1600/1235/868	1800/1006/674	2000/1400/812
ESP	Pa 30	30	30	30	30	30
Capacity	Cooling/Heating kW 11.4/18.2	12.2/18.6	12.4/19.5	13.5/21.3	16.0/24.8	17.0/26.1
Power system	Type Ph/V/Hz 1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W 174	212	380			

## 4 Rows

Model		FP-170WAF-R	FP-204WAF-R	FP-238WAF-R	FP-272WAF-R	FP-306WAF-R	FP-340WAF-R
Air flow volume(H/M/L)	CFM	948/750/500	1043/926/618	1400/971/729	1600/1235/868	1600/1006/674	2000/1400/812
ESP	Pa	30	30	30	30	30	30
Capacity	Cooling/Heating	kW	11.4/18.2	12.2/20.8	14.2/21.4	16.0/24.0	18.7/28.1
Power system	Type	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W	174	212	380	475	535	640
Water system	Water flow volume	l/s	0.51	0.58	0.78	0.89	1.02
	Pressure drop	kPa	23.9	31.5	29.2	21.7	26.2
	Fl-WG	Pa	8.0	10.5	9.7	7.2	8.7
Sound pressure level	dB(A)	51	52	56	58	60	61
Dimension (W×D×H)	Outline	mm	1921×510×245	1921×510×245	1671×595×354	1671×595×354	1921×595×354
	Package	mm	1940×560×275	1940×560×275	1750×650×380	1750×650×380	1950×650×380
Net weight/Gross weight	kg	37.5/44	37.5/44	52/60	52/60	59/66	59/66
Connection pipe diameter	Water inlet & outlet (inner groove)	inch(mm)	Φ3/4(19.05)		Φ1(25.4)		
	Condensed water drain (outer groove)	inch(mm)	Φ3/4(19.05)		Φ1(25.4)		
Loading quantity	40'GP/40'HQ	set	196/220	196/220	140/166	140/166	130/153
Options	Wired remote controller	—		Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0			
	Plenum with filter	—	HF37	HF37	HF28	HF28	HF29
	Plenum without filter	—	HF47	HF47	HF48	HF48	HF49

## 3+1 Rows

Model		FP-34WAT-R	FP-51WAT-R	FP-68WAT-R	FP-85WAT-R	FP-102WAT-R	FP-136WAT-R
Air flow volume(H/M/L)	CFM	188/156/80	289/259/186	383/324/207	477/368/242	571/507/395	760/616/424
ESP	Pa	30	30	30	30	30	30
Capacity	Cooling/Heating	kW	1.95/1.76	3.07/2.49	3.88/3.17	4.55/3.83	5.82/4.85
Power system	Type	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W	44	59	80	87	108	156
Water system	Water flow volume	l/s	0.11	0.17	0.21	0.29	0.32
	Pressure drop	kPa	10.6	23.3	18.2	38	56.5
	Fl-WG	Pa	3.5	7.8	6.1	12.7	18.8
Sound pressure level	dB(A)	40	42	44	47	49	50
Dimension (W×D×H)	Outline	mm	881×510×245	1011×510×245	1131×510×245	1211×510×245	1371×510×245
	Package	mm	900×560×275	1030×560×275	1150×560×275	1230×560×275	1390×560×275
Net weight/Gross weight	kg	14.4/18.9	17.2/21.9	19.2/24.1	20.5/25.6	23.2/28.7	34.2/40.5
Connection pipe diameter	Water inlet & outlet (inner groove)	inch(mm)	Φ3/4(19.05)				
	Condensed water drain (outer groove)	inch(mm)	Φ3/4(19.05)				
Loading quantity	40'GP/40'HQ	set	448/490	392/434	344/386	316/355	268/301
Options	Wired remote controller	—		Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0			
	Plenum with filter	—	HF31	HF32	HF33	HF34	HF35
	Plenum without filter	—	HF41	HF42	HF43	HF44	HF45

Model		FP-170WAT-R	FP-204WAT-R	FP-238WAT-R	FP-272WAT-R	FP-306WAT-R	FP-340WAT-R
Air flow volume(H/M/L)	CFM	948/836/645	1043/786/754	1400/970/729	1600/1235/867	1800/1006/674	2000/1400/812
ESP	Pa	30	30	30	30	30	30
Capacity	Cooling/Heating	kW	9.65/7.00	10.96/8.85	12.35/12.97	13.49/14.165	15.87/16.46
Power system	Type	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W	174	212	380	475	535	640
Water system	Water flow volume	l/s	0.50	0.52	0.59	0.65	0.80
	Pressure drop	kPa	28	29.4	21.8	26.6	42.1
	Fl-WG	Pa	9.3	9.8	7.3	8.9	14.0
Sound pressure level	dB(A)	51	52	56	58	60	61
Dimension (W×D×H)	Outline	mm	1921×510×245	1921×510×245	1671×595×354	1671×595×354	1921×595×354
	Package	mm	1940×560×275	1940×560×275	1750×650×380	1750×650×380	1950×650×380
Net weight/Gross weight	kg	37.5/44	37.5/44	52/60	52/60	59/66	59/66
Connection pipe diameter	Water inlet & outlet (inner groove)	inch(mm)	Φ3/4(19.05)		Φ1(25.4)		
	Condensed water drain (outer groove)	inch(mm)	Φ3/4(19.05)		Φ1(25.4)		
Loading quantity	40'GP/40'HQ	set	196/220	196/220	140/166	140/166	130/153
Options	Wired remote controller	—		Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0			
	Plenum with filter	—	HF37	HF37	HF28	HF28	HF29
	Plenum without filter	—	HF47	HF47	HF48	HF48	HF49

## High ESP Duct Type Concealed Ceiling Type

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or residential use.



Washable filter



Quiet function



Compact design



Easier maintainability

- High static pressure design up to 50Pa, especially suitable for the application with long air supply distance
- Adopting DC inverter motor for more efficient and energy-saving
- Convenient installation and compact structure

Model		FP-51WASS-K	FP-68WASS-K	FP-102WASS-K
Air flow volume(H/M/L)	CFM	300/232/155	400/291/194	600/464/309
ESP	Pa	50	50	50
Capacity	Cooling/Heating	kW	2.85/5.06	4.28/6.42
Power system	Type	Ph/V/Hz	1/220-240/50	1/220-240/50
Input	W	82	78	115
Water system	Water flow volume	l/s	0.169	0.215
	Pressure drop	kPa	15	25
	Fl-WG	Pa	5	8.3
Sound pressure level	dB(A)	44	46	49
Dimension (W×D×H)	Outline	mm	1033x575x278	1153x575x278
	Package	mm	968x510x245	1088x510x245
Net weight/Gross weight	kg	16.5/21	18/22	22/27
Connection pipe diameter	Water inlet & outlet (inner groove)	inch(mm)	3/4" (19.05)	
	Condensed water drain (outer groove)	inch(mm)	3/4" (19.05)	
Loading quantity	40'GP/40'HQ	set		
Options	Wired remote controller	—	Luxury wired controller: WK-010PA-K; LCD controller: WK-110PA0	
	Plenum with filter	—	HF32	HF33
	Plenum without filter	—	HF42	HF43

# Fan Coil Unit

Cassette Type



- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- Four directions airflow that makes an even temperature and humidity distribution.
- Evaporator moisture auto cleaning after power off to avoid mildew.
- Forced high speed fan operation under emergency condition.



Nominal test condition (temperature)					
Item	DB (°C)	WB (°C)	Inlet (°C)	Outlet (°C)	
Cooling	27	19	7	12	
Heating	20	—	50	40	

## 2 Pipe Type

Model	FP-65XD/B-T	FP-102XD/B-T	FP-125XD/B-T	FP-140XD/B-T	FP-160XD/B-T	FP-180XD/B-T	FP-200XD/B-T		
Air flow volume (H/M/L)	CFM	471/382/324	600/559/529	694/588/529	824/735/676	912/824/765	1059/863/794	1176/1000/853	
Capacity	Cooling/Heating	kW	4.50/5.50	5.00/6.50	6.00/7.80	8.00/9.00	8.70/10.00	9.50/11.00	13.00/14.60
Power system	Type	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Input	W	75	110	82	120	125	160	210	
Water system	Water flow volume	l/s	0.21	0.24	0.29	0.38	0.42	0.45	0.62
Pressure drop	kPa	24	36	24	30	30	34	40	
Sound pressure level	Ft-WG	7.572	11.871	7.872	9.840	9.840	11.221	9.84	
dB(A)	39	49	43	50	51	50	55		
Connection pipe size	Water inlet & outlet	inch(mm)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	
Condensed water drain	mm	33	33	33	33	33	33		
Body	Dimension (WxDxH)	Outline Package	mm	840×840×190	840×840×190	840×840×240	840×840×240	840×840×320	840×840×320
	Net weight/Gross weight	kg	960×960×257	960×960×257	960×960×310	960×960×310	960×960×394	960×960×394	
Panel	Dimension (WxDxH)	Outline Package	mm	950×950×85	950×950×85	950×950×85	950×950×85	950×950×85	950×950×85
	Net weight/Gross weight	kg	7/11	7/11	7/11	7/11	7/11	7/11	
Loading quantity 40GP/40HQ	set	131/147	131/147	117/133	117/133	117/133	98/112	98/112	
Standard controller	Wireless remote	-	YB1FA(X-FAN)	YB1FA(X-FAN)	YB1FA(X-FAN)	YB1FA(X-FAN)	YB1FA(X-FAN)	YB1FA(X-FAN)	
Optional controller	Wired remote	-	Z4E351B	Z4E351B	Z4E351B	Z4E351B	Z4E351B	Z4E351B	

## 4 Pipe Type

Model	FP-65XDT/B-K	FP-85XDT/B-K	FP-125XDT/B-K	FP-180XDT/B-K			
Air flow volume (H/M/L)	CFM	400	500	735	1059		
Capacity	Cooling/Heating	kW	3.5/6	4.1/6.8	6/9.5	8/13	
Power system	Type	Ph/V/Hz	1/220-240~50	1/220-240~50	1/220-240~50	1/220-240~50	
Input	W	82	82	135	191		
Water system	Water flow volume	l/s	0.21	0.24	0.29	0.44	
Pressure drop	kPa	34	57	43	40		
Sound pressure level	Ft-WG	11.197	16.601	14.128	13.006		
dB(A)	39	40	43	50			
Connection pipe size	Water inlet & outlet	mm	840×840×190	840×840×190	840×840×240	840×840×320	
Condensed water drain	mm	963×963×272	963×963×272	963×963×325	963×963×409		
Body	Dimension (WxDxH)	Outline Package	kg	25/33	27/34	32/41	
	Net weight/Gross weight	mm	950×950×85	950×950×85	950×950×85	950×950×85	
Panel	Dimension (WxDxH)	Outline Package	kg	1033×1038×133	1033×1036×133	1033×1038×133	1033×1038×133
	Net weight/Gross weight	inch(mm)	7/11	7/11	7/11	7/11	
Loading quantity 40GP/40HQ	set	131/147	131/147	121/134	98/112		
Standard controller	Wireless remote	-	YB1FA(XFAN)	YB1FA(XFAN)	YB1FA(XFAN)	YB1FA(XFAN)	
Optional controller	Wired remote	-	Z4E351B	Z4E351B	Z4E351B	Z4E351B	

# Fan Coil Unit

Floor Ceiling Type



- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- The fan will be operated only if the chilled water inlet temperature is lower than the setting value to avoid warm air under cooling condition.



Item	Nominal test condition (temperature)			
	DB(°C)	DB(°C)	DB(°C)	DB(°C)
Cooling	27	19	7	12
Heating	21	—	70	60

Model	FP-34ZD-K	FP-51ZD-K	FP-68ZD-K	FP-85ZD-K	FP-102ZD-K	FP-136ZD-K	FP-170ZD-K	FP-204ZD-K		
Air flow volume (H/M/L)	m <sup>3</sup> /h	400/292/250	510/395/264	680/450/430	720/615/410	1020/765/510	1100/880/550	1800/1276/850	2040/1575/1051	
Capacity	Cooling	kW	2.0	2.8	3.6	4.2	5.4	6.36	8.8	9.9
Heating	kW	5.0	7.2	8.5	9.5	11.5	13.7	19.0	21.0	
Power system	Type	Ph/V/Hz	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50	
Input	W	45	58	72	80	86	78	150	200	
Water system	Water flow volume	l/s	0.13	0.14	0.16	0.20	0.27	0.32	0.40	0.44
Pressure drop	kPa	16.5	5	10	20	36	38	52	55	
Sound pressure level	Ft-WG	5.41	1.64	3.28	6.56	11.81	12.46	17.06	18.04	
Connection pipe diameter	Water inlet & outlet	inch(mm)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	φ3/4(19.05)	
Condensed water drain	inch(mm)	φ5/8(15.60)	φ5/8(15.60)	φ5/8(15.60)	φ5/8(15.60)	φ5/8(15.60)	φ5/8(15.60)	φ5/8(15.60)	φ5/8(15.60)	
Dimension (WxDxH)	Outline Package	mm	834×238×694	834×238×694	834×238×694	1300×188×800	1300×188×800	1580×238×685	1580×238×685	
Net weight/Gross weight	kg	26/33	26/33	27/34	27/34	34/40	34/40	48.5/57	48.5/57	
Loading quantity 40GP/40HQ	set	224/267	224/267	224/267	220/244	220/244	111/117	111/117		
Standard	Wireless remote controller	—	YB1FA	YB1FA	YB1FA	YB1FA	YB1FA	YB1FA		
Optional	Wired remote controller	—	Z4E351B	Z4E351B	Z4E351B	Z4E351B	Z4E351B	Z4E351B		

# Fan Coil Unit

Wall Mounted Type



- Inner groove copper
- Washable filter
- Anti-cold function
- Quiet function
- Auto clean
- Multi fan speed
- Compact design

- Thanks to optimized air flue design that greatly improve the fan efficiency and lower the operation noise.
- Reasonable airflow that makes an even temperature and humidity distribution.



## With air release valve

Item	Nominal test condition (temperature)			
	DB(°C)	WB(°C)	Inlet(°C)	Outlet(°C)
Cooling	27	19	7	12
Heating	21	—	60	—

Model	FP-34BA2/D-K	FP-51BA2/D-K	FP-68BA2/D-K	FP-85BA2/D-K
Air flow volume	High CFM 212	Medium CFM 189	Medium CFM 324	Low CFM 400
ESP	Pa 0	Pa 0	Pa 0	Pa 0
Capacity	Cooling kW 2	Heating kW 2.7	Cooling kW 2.5	Heating kW 3.2
Power system	Type Ph/V/Hz 1/220-240/50	Input W 50	Type Ph/V/Hz 1/220-240/50	Input W 50
Water system	Water flow volume l/s 0.111	Pressure drop kPa 20	Water flow volume l/s 0.125	Pressure drop kPa 36
Sound pressure level	dB(A) 35	dB(A) 40	dB(A) 43	dB(A) 48
Connection pipe diameter	Water inlet & outlet inch(mm) $\varnothing 1/2(12.7)$	Condensed water drain inch(mm) $\varnothing 5/8(15.6)$	Water inlet & outlet inch(mm) $\varnothing 1/2(12.7)$	Condensed water drain inch(mm) $\varnothing 5/8(15.6)$
Dimension (WxDxH)	Outline mm 845X180X275	Outline mm 845X180X275	Outline mm 940X200X298	Outline mm 915X255X355
Net weight/Gross weight	kg 11/14	kg 11/14	kg 13/17	kg 13/17
Loading quantity	40GP/40HQ set 765/850	40GP/40HQ set 765/850	40GP/40HQ set 595/671	40GP/40HQ set 595/671
Standard	Wireless remote controller YB1FA(XFAN)	Wireless remote controller YB1FA(XFAN)	Wireless remote controller YB1FA(XFAN)	Wireless remote controller YB1FA(XFAN)
Optional	Wired remote controller Z4E351B	Wired remote controller Z4E351B	Wired remote controller Z4E351B	Wired remote controller Z4E351B

# Air Handling Unit

Horizontal Mounted Packaged

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or industrial use.

## B Series



## E Series



- Washable filter
- Quiet function
- Compact design
- Easier maintainability

## B Series

- Anti-freeze designed cooling coil.
- Anti-corrosion thanks to painted double-faced electro-galvanized or hot-electro-galvanized metal case.
- Easy maintenance thanks to detachable panel and adjustable motor base.
- Blue hydrophilic aluminum fin: The fin is anti-corrosion and easy clean, lower decreasing of performance after years of operation.
- Anti-frostcrack design for heat exchanger: With proper designed water discharge valve, complete water discharging is ensured, so that the copper tube will not be frost cracked during winter.
- The heat exchange stream is well optimized design, that the heat exchange performance of the heat exchanger can be maximum utilized.
- Slimmer body by maximum optimized design, can save more space and bring down the cost.

## E Series

- Anti-freeze designed cooling coil.
- Anti-corrosion thanks to painted double-faced electro-galvanized or hot-electro-galvanized metal case.
- Easy maintenance thanks to detachable panel and adjustable motor base.
- Blue hydrophilic aluminum fin: The fin is anti-corrosion and easy clean, lower decreasing of performance after years of operation.
- Anti-frostcrack design for heat exchanger: With proper designed water discharge valve, complete water discharging is ensured, so that the copper tube will not be frost cracked during winter.
- The heat exchange stream is well optimized design, that the heat exchange performance of the heat exchanger can be maximum utilized.
- Slimmer body by maximum optimized design, can save more space and bring down the cost.

Item	Nominal test condition (temperature)			
	DB (°C)	WB (°C)	Inlet (°C)	Outlet (°C)
Return air type	Cooling 27	19.5	7	12
	Heating 21	—	60	—
Fresh air type	Cooling 35	28	7	12
	Heating 7	—	60	—

## B Series

Model		G-1.5WD(I)(Y)/B-M	G-1.5WDX(I)(Y)/B-M	G-2WD(I)(Y)/B-M	G-2WDX(I)(Y)/B-M	G-2.5WD(I)(Y)/B-M	G-2.5WDX(I)(Y)/B-M
Air flow volume	m³/h	1500	1500	2000	2000	2500	2500
	CFM	881	881	1174	1174	1468	1468
Capacity (4/rows)	Cooling	kW	8.40/12.03	20.65/23.49	11.03/13.50	25.71/31.32	14.10/18.42
	Heating	kW	13.70/17.28	22.58/26.19	17.96/19.58	28.26/33.21	22.27/27.02
Water flow volume(4/rows)	l/s	0.41/0.57	1/1.25	0.53/0.65	1.23/1.59	0.67/0.88	1.69/2.05
	GPM	1.80/2.51	4.4/5.5	2.33/2.86	5.412/6.996	2.95/3.87	7.436/9.02
Pressure drop(4/rows)	kPa	5/7	10.74/21.05	7/10	15.6/32.18	8/11	30.81/20.99
	Ft-WG	1.67/2.34	3.59/7.02	2.34	5.21/10.73	2.67	10.29/7
Esp.range(optional )		Pa	40-300	40-300	40-300	50-350	50-350
	Ft-WG	0.013-0.098	0.013-0.1	0.013-0.098	0.013-0.1	0.016-0.115	0.017-0.117
4 Rows	ESP range 1	ESP	Pa	40-300	40-300	40-300	50-200
		Motor Input	Kw	0.55	0.55	0.55	0.55
	ESP range 2	ESP	Pa	-	-	-	200-350
		Motor Input	Kw	-	-	-	0.75
	ESP range 3	ESP	Pa	-	-	-	-
		Motor Input	Kw	-	-	-	-
6 Rows	ESP range 1	ESP	Pa	40-300	40-300	40-240	40-300
		Motor Input	Kw	0.55	0.55	0.55	0.55
	ESP range 2	ESP	Pa	-	-	240-300	-
		Motor Input	Kw	-	-	0.75	0.75
	ESP range 3	ESP	Pa	-	-	-	290-350
		Motor Input	Kw	-	-	-	1.1
Net weight(4/rows)	kg	103/140	105/140	138/150	125/160	146/160	125/160
Gross weight(4/rows)	kg	130/170	130/165	173/185	160/200	186/200	160/200
Sound pressure level	dB(A)	63	53	55	55	58	56
Connection pipe size	Water inlet & outlet	-	DN40	DN40	DN40	DN40	DN40
	Condensed water drain	-	DN25	DN25	DN25	DN25	DN25
Dimension (W×D×H)	Outline	mm	1100×1020×440	1100X1020X440	1100×1020×460	1100X1020X460	1400×1120×460
	Package	mm	1280×1130×595	1280X1130X595	1280×1230×615	1280X1230X615	1580×1230×615
Loading quantity	40'GP	set	54	54	54	54	44
	40'HQ	set	54	54	54	54	44

Model		G-5WD(I)(Y)/B-M	G-5WDX(I)(Y)/B-M	G-6WD(I)(Y)/B-M	G-6WDX(I)(Y)/B-M
Air flow volume	m³/h	5000	5000	6000	6000
	CFM	2935	2935	3522	3522
Capacity (4/rows)	Cooling	kW	28.69/36.19	60.67/78.31	33.47/43.52
	Heating	kW	43.40/53.90	67.72/80.11	52.70/63.40
Water flow volume(4/rows)	l/s	1.37/1.73	2.91/3.83	1.68/2.08	3.54/4.5
	GPM	6.03/7.61	12.804/16.852	7.39/9.15	15.4/20.24
Pressure drop(4/rows)	kPa	16/19	10.1/20.7	16/21	10.1/20.7
	Ft-WG	5.34/6.35	3.37/6.9	5.28/6.95	3.37/6.9
Esp.range(optional )		Pa	65-350	75-400	75-400
	Ft-WG	0.021-0.115	0.022-0.117	0.025-0.131	0.025-0.133
4 Rows	ESP range 1	ESP	Pa	65-220	65-160
		Motor Input	Kw	1.1	1.1
	ESP range 2	ESP	Pa	220-310	160-280
		Motor Input	Kw	1.5	1.5
	ESP range 3	ESP	Pa	310-400	290-400
		Motor Input	Kw	2.2	2.2
6 Rows	ESP range 1	ESP	Pa	65-190	65-160
		Motor Input	Kw	1.1	1.1
	ESP range 2	ESP	Pa	190-280	160-280
		Motor Input	Kw	1.5	1.5
	ESP range 3	ESP	Pa	280-400	280-350
		Motor Input	Kw	2.2	2.2
Net weight(4/rows)	kg	235/250	235/250	235/250	235/250
Gross weight(4/rows)	kg	290/305	290/300	290/305	290/300
Sound pressure level	dB(A)	60	60	60	60
Connection pipe size	Water inlet & outlet	-	DN50	DN50	DN50
	Condensed water drain	-	DN25	DN25	DN25
Dimension (W×D×H)	Outline	mm	2100×1320×560	2180X1320X560	2100×1320×560
	Package	mm	2280×1430×715	2280X1430X715	2280×1430×715
Loading quantity	40'GP	set	18	18	18
	40'HQ	set	18	18	18

Model		G-3WD(I)(Y)/B-M	G-3WDX(I)(Y)/B-M	G-4WD(I)(Y)/B-M	G-4WDX(I)(Y)/B-M
Air flow volume	m³/h	3000	3000	4000	4000
	CFM	1761	1761	2348	2348
Capacity (4/rows)	Cooling	kW	17.11/21.53	40.6/46.99	22.50/28.78
	Heating	kW	27.80/30.13	43.44/49.83	34.55/42.79
Water flow volume(4/rows)	l/s	0.86/1.03	1.94/2.38	1.08/1.38	2.33/3.07
	GPM	3.78/4.53	8.538/10.472	4.75/6.07	10.25/13.508
Pressure drop(4/rows)	kPa	11/15	39.15/27.45	13/16	6.5/13.4
	Ft-WG	3.67	13.08/9.15	4.34	2.17/4.47
Esp.range(optional )		Pa	50-350	50-350	65-350
	Ft-WG	0.018-0.115	0.017-0.117	0.021-0.115	0.022-0.117
4 Rows	ESP range 1	ESP	Pa	50-130	50-130
		Motor Input	Kw	0.55	0.55
	ESP range 2	ESP	Pa	130-210	140-230
		Motor Input	Kw	0.75	0.75
	ESP range 3	ESP	Pa	210-350	230-350
		Motor Input	Kw	1.1	1.1
6 Rows	ESP range 1	ESP	Pa	50-180	50-140
		Motor Input	Kw	0.75	0.55
	ESP range 2	ESP	Pa	180-280	140-230
		Motor Input	Kw	1.1	0.75
	ESP range 3	ESP	Pa	280-350	230-350
		Motor Input	Kw	1.5	1.1
Net weight(4/rows)	kg	167/180	160/180	186/200	195/200
Gross weight(4/rows)	kg	207/220	195/210	236/250	230/235
Sound pressure level	dB(A)	58	58	59	59
Connection pipe size	Water inlet & outlet	-	DN40	DN40	DN40
	Condensed water drain	-	DN25	DN25	DN25
Dimension (W×D×H)	Outline	mm	1600×1120×460	1680X1120X460	2000×1120×460
	Package	mm	1780×1230×615	1780X1230X615	2180X1230X615
Loading quantity	40'GP	set	44	44	18
	40'HQ	set	44	44	18

Note :  
1. Testing conditions is as below:  
COOLING: Air 35°CDB/28°CWB; Entering water temp. 7°C; Leaving water temp.12°C; HEATING: Air 7°CDB; Entering water temp. 60°C;  
2. Sound power level according to Iso5151-sound pressure calculated at 1m distance.  
3. Operation weight Net. Weight x 1.2  
4. Data of motor power, sound pressure lever etc. listed above may change according to the different standard ESP type selected, please see the standard data on nameplate on the unit or consult our sales person.

Model		G-7WD(I)(Y)/B-M	G-7WDX(I)(Y)/B-M	G-8WD(I)(Y)/B-M	G-8WDX(I)(Y)/B-M





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## E Series

Model		G-1.5WD(I)(Y)/E-M	G-1.5wdx(I)(Y)/E-M	G-2WD(I)(Y)/E-M	G-2wdx(I)(Y)/E-M	G-2.5WD(I)(Y)/E-M	G-2.5wdx(I)(Y)/E-M
Air flow volume	m³/h	1500	1500	2000	2000	2500	2500
	CFM	881	881	1175	1175	1469	1469
Capacity (4/6rows)	Cooling kW	9.8/11.96	20.6/25.8	12.5/14.26	27.5/33.5	15.6/19.2	33/41.6
	Heating kW	15.8/17.12	22.8/24.8	22.4/22.62	28.6/32.1	27.3/25.8	35.8/41.3
Water flow volume(4/6rows)	l/s	0.43/0.57	0.99/1.25	0.53/0.65	1.28/1.6	0.66/0.88	1.57/2.1
	GPM	1.89/2.51	4.36/5.50	2.33/2.86	5.63/7.04	2.9/3.87	6.97/9.24
Pressure drop(4/6rows)	kPa	6.5/5.25	30.3/30.4	9.2/7.85	40.5/22.3	16.3/15.40	25.4/35.8
	Ft-WG	2.17/1.75	10.12/10.15	3.07/2.62	13.53/7.45	5.44/5.14	8.48/11.89
Esp.range(optional )	Pa	40-265/50-280	40-265/50-280	40-265/55-295	40-265/55-295	90-255/95-270	90-255/95-270
	Ft-WG	0.013-0.093/0.016-0.092	0.013-0.093/0.018-0.097	0.030-0.084/0.031-0.089	0.030-0.084/0.031-0.089	0.025-0.131/0.044-0.131	0.025-0.118/0.039-0.131
4 Rows	ESP range 1	ESP Pa	40-285	40-285	40-285	90-222	90-222
	Motor Input	Kw	0.55	0.55	0.55	0.55	0.55
	ESP range 2	ESP Pa	-	-	-	233-255	223-255
	Motor Input	Kw	-	-	-	0.75	0.75
6 Rows	ESP range 3	ESP Pa	-	-	-	-	-
	Motor Input	Kw	-	-	-	-	-
	ESP range 1	ESP Pa	50-280	50-280	55-295	55-295	95-233
	Motor Input	Kw	0.55	0.55	0.55	0.55	0.55
6 Rows	ESP range 2	ESP Pa	-	-	-	234-270	234-270
	Motor Input	Kw	-	-	-	0.75	0.75
	ESP range 3	ESP Pa	-	-	-	-	-
	Motor Input	Kw	-	-	-	-	-
Net weight(4/6rows)	kg	98/104	98/104	98/104	98/104	107/115	107/115
Gross weight(4/6rows)	kg	127/133	127/133	127/133	127/133	137/145	137/145
Sound pressure level	dB(A)	≤53	≤53	≤55	≤55	≤56	≤56
Connection pipe size	Water inlet & outlet	-	DN25	DN25	DN25	DN25	DN25
	Condensed water drain	-	DN25	DN25	DN25	DN25	DN25
Dimension (W×D×H)	Outline	mm	1070×1050×478	1070×1050×478	1070×1050×478	2570×1050×704	2570×1050×704
	Package	mm	1370X1130X535	1370X1130X535	1370X1130X535	2770×1130×789	2770×1130×789
Loading quantity	40'GP	set	32	32	32	28	28
	40'HQ	set	32	32	32	28	28

Model		G-6WD(I)(Y)/E-M	G-6wdx(I)(Y)/E-M	G-7WD(I)(Y)/E-M	G-7wdx(I)(Y)/E-M	G-8WD(I)(Y)/E-M	G-8wdx(I)(Y)/E-M
Air flow volume	m³/h	6000	6000	7000	7000	8000	8000
	CFM	3525	3525	4112	4112	4699	4699
Capacity (4/6rows)	Cooling kW	37.4/44.1	79.6/98.8	43.6/50.8	92.9/112.3	49.8/62.5	106.3/129.7
	Heating kW	66.8/63.5	80.7/96.5	78.8/72.5	89.5/113.6	90.8/88.7	108.8/124.1
Water flow volume(4/6rows)	l/s	1.6/2.1	3.8/4.7	1.83/2.43	4.43/5.4	2.1/2.85	5.1/6.1
	GPM	7.04/9.24	16.72/20.68	9.05/10.69	19.49/23.76	9.24/12.54	22.44/26.84
Pressure drop(4/6rows)	kPa	38.9/34.10	45.8/29.4	46.7/17.30	50.5/31.5	53.5/20.80	55.1/40.4
	Ft-WG	12.99/11.39	15.30/9.82	15.60/5.78	16.87/10.52	17.87/6.95	18.40/13.49
Esp.range(optional )	Pa	75400/135-400	75400/135-400	75360/120-400	75360/120-400	90-370/140-370	90-370/140-370
	Ft-WG	0.025-0.131/0.044-0.131	0.025-0.118/0.039-0.131	0.025-0.118/0.039-0.131	0.025-0.118/0.039-0.131	0.030-0.121/0.048-0.121	0.030-0.121/0.048-0.121
4 Rows	ESP range 1	ESP Pa	72-146	75-146	75-257	75-257	90-182
	Motor Input	Kw	0.75	0.75	1.1	1.1	1.1
	ESP range 2	ESP Pa	147-347	147-347	258-360	258-360	183-307
	Motor Input	Kw	1.1	1.1	1.5	1.5	1.5
6 Rows	ESP range 3	ESP Pa	348-400	348-400	-	-	308-370
	Motor Input	Kw	1.5	1.5	-	-	2.2
	ESP range 1	ESP Pa	135-280	135-280	120-254	120-254	140-175
	Motor Input	Kw	1.1	1.1	1.1	1.1	1.1
6 Rows	ESP range 2	ESP Pa	281-400	281-400	255-400	255-400	176-300
	Motor Input	Kw	1.5	1.5	1.5	1.5	1.5
	ESP range 3	ESP Pa	-	-	-	-	301-370
	Motor Input	Kw	-	-	-	-	2.2
Net weight(4/6rows)	kg	163/179	163/179	179/197	179/197	209/229	209/229
Gross weight(4/6rows)	kg	190/206	190/206	210/228	210/228	236/256	236/256
Sound pressure level	dB(A)	≤60	≤60	≤61	≤61	≤63	≤63
Connection pipe size	Water inlet & outlet	-	DN40	DN40	DN40	DN40	DN40
	Condensed water drain	-	DN25	DN25	DN25	DN25	DN25
Dimension (W×D×H)	Outline	mm	1500×1050×734	1500×1050×734	1670×1050×734	1670×1050×734	1870×1050×734
	Package	mm	1700×1130×812	1700×1130×812	1870×1130×812	1870×1130×812	2070×1130×812
Loading quantity	40'GP	set	24	24	24	24	20
	40'HQ	set	24	24	24	24	20

Model		G-3WD(I)(Y)/E-M	G-3wdx(I)(Y)/E-M	G-4WD(I)(Y)/E-M	G-4wdx(I)(Y)/E-M	G-5WD(I)(Y)/E-M	G-5wdx(I)(Y)/E-M
Air flow volume	m³/h	3000	3000	4000	4000	5000	5000
	CFM	1762	1762	2350	2350	2937	2937
Capacity (4/6rows)	Cooling kW	18.7/22.13	40.7/50.2	24.9/30.18	55.3/65.6	31/35.4	66.3/82.4
	Heating kW	33.5/33	42.5/49.8	43.2/44.2	55.9/64.3	56.1/53.1	68.9/81.1
Water flow volume(4/6rows)	l/s	0.79/1.03	1.9/2.4	1.1/1.44	2.63/3.2	1.3/1.71	3.17/4.0
	GPM	3.48/4.53	8.36/10.56	4.84/8.34	11.57/14.08	5.72/7.52	13.95/17.60
Pressure drop(4/6rows)	kPa	26.2/19.92	46.6/42.5	20.1/24.60	30.8/50.8	35.3/34.00	56.9/35.8
	Ft-WG	8.75/8.65	15.58/14.20	6.71/8.22	10.29/16.97	11.79/11.36	19/11.89
Esp.range(optional )	Pa	75-400/90-345	75-400/90-345	60-400/120-400	60-400/120-400	95-400/135-390	95-400/135-390
	Ft-WG	0.025-0.131/0.030-0.113	0.020-0.131/0.039-0.131	0.031-0.131/0.044-0.128	0.031-0.131/0.044-0.128	0.031-0.131/0.044-0.128	0.031-0.131/0.044-0.128

# Air Handling Unit

## Vertical Mounted Packaged

It is a kind of fan coil unit that is connected to the chillers to realize cooling/heating for civil or industrial use.



Washable filter



Quiet function



Multi fan speed



Compact design



Easier maintainability

Model		G-3(I)(Y)-M	G-3X(I)(Y)-M	G-4(I)(Y)-M	G-4(I)(Y)-M	G-5(I)(Y)-M	G-5X(I)(Y)-M	G-6(I)(Y)-M
Air flow volume	m³/h	3000	3000	4000	4000	5000	5000	6000
	CFM	1762	1762	2350	2350	2937	2937	3525
Capacity (4/6rows)	Cooling	kW	18.2/26.5	43.8/53.5	23.5/35.1	58.5/73.1	32.2/44.1	73.1/91.1
	Heating	kW	28.2/35.3	47.3/57.2	40.2/48.5	63.2/78.2	50.2/58.4	78.5/97.5
Water flow volume(4/6rows)	V <sub>s</sub>	0.87/1.27	2.1/2.58	1.13/1.68	2.8/3.49	1.54/2.1	3.49/4.35	1.74/2.51
	GPM	3.83/5.59	9.24/11.35	4.97/7.39	12.32/15.36	6.78/9.24	15.36/19.14	7.66/11.04
Pressure drop(4/6rows)	kPa	9.15/12.9	17.4/23.5	11.9/14.6	20.1/30.5	16/15	12.2/28.8	21.2/16.1
	Ft-WG	3.06/4.31	5.81/7.85	3.97/4.88	6.71/10.19	5.34/5.01	4.07/9.62	7.08/5.35
Esp.range(optional )	Pa	50-300	50-300	65-350	65-350	65-350	65-350	75-350
	Ft-WG	0.016-0.098	0.016-0.098	0.021-0.115	0.021-0.115	0.021-0.115	0.021-0.115	0.025-0.115
4 Rows	ESP range 1	ESP	Pa	50-170	40-170	65-200	65-200	65-220
		Motor Input	Kw	0.55	0.55	1.1	1.1	1.1
	ESP range 2	ESP	Pa	170-250	170-250	200-350	200-350	220-350
		Motor Input	Kw	0.75	0.75	1.5	1.5	1.5
6 Rows	ESP range 3	ESP	Pa	250-300	250-300	-	-	-
		Motor Input	Kw	1.1	1.1	-	-	-
	ESP range 1	ESP	Pa	50-170	50-170	65-200	65-200	65-220
		Motor Input	Kw	0.55	0.55	1.1	1.1	1.1
8 Rows	ESP range 2	ESP	Pa	170-250	170-250	220-350	200-350	220-350
		Motor Input	Kw	0.75	0.75	1.5	1.5	1.5
	ESP range 3	ESP	Pa	250-300	250-300	-	-	-
		Motor Input	Kw	1.1	1.1	-	-	-
Net weight(4/6rows)	kg	215/240	215/240	260/295	260/295	305/330	305/330	340/375
Gross weight(4/6rows)	kg	250/275	250/275	295/335	295/335	345/360	345/360	420/455
Sound pressure level	dB(A)	≤58	≤58	≤59	≤59	≤60	≤60	≤60
Connection	Water inlet & outlet	-	DN50/DN40	DN50/DN40	DN50/DN40	DN50/DN40	DN50/DN40	DN65/DN65
	pipe size	-	DN25	DN25	DN25	DN25	DN25	DN25
Dimension (W×D×H)	Outline	mm	1150×730×1300	1150×730×1300	1150×730×1400	1150×730×1400	1350×830×1400	1350×830×1600
	Package	mm	1260×830×1420	1260×830×1420	1260×830×152	1260×830×152	1450×950×155	1450×950×175
Loading quantity	40'GP	set	22	22	22	22	16	16
	40HQ	set	22	22	22	22	16	14

- Anti-corrosion and cold bridges prevention thanks to sandwich structure case.
- Anti-corrosion thanks to painted double-faced electro-galvanized or hot-electro-galvanized metal case.
- Painted electro-galvanized metal sheet as outer-layer.
- Hot galvanized metal sheet as inner-layer.
- High-density heat-insulated urethane foam filled between outer and inner layers.
- Easy maintenance thanks to detachable panel and adjustable motor base.

Nominal test condition (temperature)				
Item	DB (°C)	WB (°C)	Inlet (°C)	Outlet (°C)
Return air type	Cooling	27	19.5	7
	Heating	21	—	60
Fresh air type	Cooling	35	28	7
	Heating	7	—	60

Model		G-6(I)(Y)-M	G-6X(I)(Y)-M	G-8(I)(Y)-M	G-10(I)(Y)-M	G-10X(I)(Y)-M	G-12(I)(Y)-M	G-12X(I)(Y)-M
Air flow volume	m³/h	6000	8000	8000	10000	10000	12000	12000
	CFM	3525	4699	4699	5874	5874	7049	7049
Capacity (4/6rows)	Cooling	kW	88.2/105.5	50.5/66.1	116.5/151.6	61.1/84.1	145.8/182.3	72.1/96.5
	Heating	kW	95.2/112.8	75.8/88.8	125.8/162.2	92.3/112.3	157.4/195.1	112.8/133.5
Water flow volume(4/6rows)	V <sub>s</sub>	4.21/5.04	2.32/3.16	5.59/6.98	2.87/4.02	6.98/8.7	3.44/4.61	8.27/10.37
	GPM	18.52/22.18	10.21/13.90	24.60/30.71	12.63/17.69	30.71/38.28	15.14/20.28	36.39/45.63
Pressure drop(4/6rows)	kPa	14.1/25.6	30.9/20.8	18.4/29.6	57.1/23.2	24/35.2	12/25.6	34.6/41.2
	Ft-WG	4.71/8.62	10.32/6.95	6.15/9.95	19.07/7.75	8.02/11.76	4.01/8.55	11.56/13.76
Esp.range(optional )	Pa	75-350	90-450	90-450	90-500	90-500	100-500	100-500
	Ft-WG	0.025-0.115	0.030-0.148	0.030-0.148	0.030-0.164	0.030-0.164	0.033-0.164	0.033-0.164
4 Rows	ESP range 1	ESP	Pa	75-100	90-340	90-450	90-180	100-200
		Motor Input	Kw	1.5	2.2	2.2	2.2	3.0
	ESP range 2	ESP	Pa	130-350	340-450	340-450	180-350	180-350
		Motor Input	Kw	2.2	3.0	3.0	3.0	4.0
6 Rows	ESP range 3	ESP	Pa	-	-	-	350-500	350-500
		Motor Input	Kw	-	-	-	4.0	4.0
	ESP range 1	ESP	Pa	75-130	90-340	90-340	90-180	100-200
		Motor Input	Kw	1.5	2.2	2.2	2.2	3.0
8 Rows	ESP range 2	ESP	Pa	130-350	340-350	340-450	180-350	180-350
		Motor Input	Kw	2.2	3.0	3.0	3.0	4.0
	ESP range 3	ESP	Pa	-	-	-	350-500	350-500
		Motor Input	Kw	-	-	-	4.0	4.0
Net weight(4/6rows)	kg	340/375	390/435	390/435	450/485	450/485	503/535	503/535
Gross weight(4/6rows)	kg	420/455	430/475	430/475	475/535	475/535	563/585	563/585
Sound pressure level	dB(A)	≤50	≤53	≤53	≤55	≤55	≤56	≤56
Connection	Water inlet & outlet	-	DN65/DN65	DN65/DN65	DN65/DN65	DN65/DN65	DN65/DN65	DN65/DN65
	pipe size	-	DN25	DN32	DN32	DN32	DN32	DN32
Dimension (W×D×H)	Outline	mm	1350×830×1600	1750×830×1800	1750×830×1800	1950×830×1800	1950×830×1900	1950×830×1900
	Package	mm	1450×950×1750	1850×950×1950	1850×950×1950	2050×950×1950	2050×950×205	

Model		G-14(I)(Y)-M	G-14X(I)(Y)-M	G-16(I)(Y)-M	G-16X(I)(Y)-M	G-18(I)(Y)-M	G-18X(I)(Y)-M	G-20(I)(Y)-M
Air flow volume	m³/h	14000	14000	16000	16000	18000	18000	20000
	CFM	8224	8224	9399	9399	10574	10574	11748
Capacity (4/6rows)	Cooling	kW	87.8 /111.6	197.6 /240.7	95.1 /123	212.1 /252.1	118.2 /143.8	239.6 /291.1
	Heating	kW	129.5 /155.4	214.6 /246.8	143.3 /173.2	245.3 /282.1	161.5 /198.2	276.0 /317.4
Water flow volume(4/6rows)	l/s	3.92 /5.34	9.46 /12.09	4.35 /5.88	10.13 /12.66	5.07 /6.87	11.45 /14.62	5.81 /7.89
	GPM	17.25 /23.50	41.62 /53.20	19.14 /25.87	44.57 /55.70	22.31 /30.23	50.38 /64.33	25.58 /34.72
Pressure drop(4/6rows)	kPa	22.05 /28.01	22.05 /33.8	23 /32.1	26.6 /40.2	25 /35.2	25 /38.2	25 /38.5
	Ft-WG	7.36 /9.36	7.36 /11.29	7.68 /10.72	8.88 /13.43	8.35 /11.76	8.35 /12.76	8.35 /12.86
Esp.range(optional )	Pa	100-550	100-550	120-600	120-600	120-600	120-600	140-600
	Ft-WG	0.033-0.180	0.033-0.180	0.039-0.197	0.039-0.197	0.039-0.197	0.039-0.197	0.046-0.197
4 Rows	ESP range 1	ESP	Pa	100-210	100-210	120-250	120-250	120-340
		Motor Input	Kw	3.0	3.0	4.0	4.0	5.5
	ESP range 2	ESP	Pa	210-330	210-330	250-600	250-600	340-600
		Motor Input	Kw	4.0	4.0	5.5	5.5	7.5
	ESP range 3	ESP	Pa	330-550	330-550	-	-	-
		Motor Input	Kw	5.5	5.5	-	-	11
6 Rows	ESP range 1	ESP	Pa	100-210	100-210	120-250	120-250	120-340
		Motor Input	Kw	3.0	3.0	4.0	4.0	5.5
	ESP range 2	ESP	Pa	210-330	210-330	250-600	250-600	340-600
		Motor Input	Kw	4.0	4.0	5.5	5.5	7.5
	ESP range 3	ESP	Pa	330-550	330-550	-	-	-
		Motor Input	Kw	5.5	5.5	-	-	11
Net weight(4/6rows)	kg	545/580	545/580	745/780	745/780	790/840	815/840	815/860
Gross weight(4/6rows)	kg	590/630	590/630	820/850	820/850	850/900	890/900	890/930
Sound pressure level	dB(A)	≤67	≤67	≤68	≤68	≤69	≤69	≤69
Connection pipe size	Water inlet & outlet	-	DN65/DN65	DN65/DN65	DN65/DN65	DN65/DN65	DN65/DN65	DN80/DN80
	Condensed water drain	-	DN32	DN32	DN32	DN32	DN32	DN32
Dimension (W×D×H)	Outline	mm	2250×930×2100	2250×930×2100	2250×930×2100	2250×930×2100	2250×930×2100	1980×1440×1930
	Package	mm	2450×1060×2250	2450×1060×2250	2380×1060×2450	2380×1060×2450	2380×1060×2450	2040×1500×2060
Loading quantity	40'GP	set	8	8	8	8	8	7
	40'HQ	set	8	8	8	8	8	7

Model		G-20X(I)(Y)-M	G-22(I)(Y)-M	G-22X(I)(Y)-M	G-25(I)(Y)-M	G-25X(I)(Y)-M	G-30(I)(Y)-M	G-30X(I)(Y)-M
Air flow volume	m³/h	20000	22000	22000	25000	25000	30000	30000
	CFM	11748	12923	12923	14686	14686	17623	17623
Capacity (4/6rows)	Cooling	kW	280.8 /320.5	143.5 /179	316.4 /370.3	158.3 /195	344.5 /407.7	200.8 /233
	Heating	kW	306.6 /352.6	207.2 /245.6	337.3 /387.9	226.3 /278.5	383.3 /440.8	271.4 /335
Water flow volume(4/6rows)	l/s	13.9 /16.1	6.38 /8.56	15.12 /18.65	7.28 /9.32	16.46 /20.45	8.39 /11.14	19.98 /24.73
	GPM	61.16 /70.84	28.07 /37.66	66.53 /82.06	32.03 /41.01	72.42 /90.11	36.92 /49.02	87.91 /108.81
Pressure drop(4/6rows)	kPa	25 /36.5	20 /32.1	20 /32.1	29 /36	29 /38	23 /38	23 /38
	Ft-WG	8.35 /12.19	6.68 /10.72	6.68 /10.72	9.69 /12.02	9.69 /12.69	7.68 /12.69	7.68 /12.69
Esp.range(optional )	Pa	140-600	170-570	170-570	170-550	170-550	220-650	220-650
	Ft-WG	0.046-0.197	0.056-0.187	0.056-0.187	0.056-0.180	0.056-0.180	0.072-0.213	0.072-0.213
4 Rows	ESP range 1	ESP	Pa	140-220	170-300	170-300	170-380	220-550
		Motor Input	Kw	5.5	5.5	5.5	7.5	11
	ESP range 2	ESP	Pa	220-450	300-460	300-460	380-550	550-650
		Motor Input	Kw	7.5	7.5	7.5	11	15
	ESP range 3	ESP	Pa	450-600	460-570	460-570	-	-
		Motor Input	Kw	11	11	11	-	-
6 Rows	ESP range 1	ESP	Pa	140-220	170-300	170-300	170-380	220-550
		Motor Input	Kw	5.5	5.5	5.5	7.5	11
	ESP range 2	ESP	Pa	220-450	300-460	300-460	380-550	580-650
		Motor Input	Kw	7.5	7.5	7.5	11	15
	ESP range 3	ESP	Pa	450-600	460-570	460-570	-	-
		Motor Input	Kw	11	11	11	-	-
Net weight(4/6rows)	kg	815/860	865/915	865/915	910/960	910/960	1015/1250	1015/1250
Gross weight(4/6rows)	kg	890/930	905/980	905/980	950/1000	950/1000	1075/1310	1075/1310
Sound pressure level	dB(A)	≤69	≤63	≤63	≤65	≤65	≤66	≤66
Connection pipe size	Water inlet & outlet	-	DN80/DN80	DN80/DN80	DN80/DN80	DN80/DN80	DN80/DN80	DN80/DN80
	Condensed water drain	-	DN32	DN32	DN32	DN32	DN32	DN32
Dimension (W×D×H)	Outline	mm	1950×1440×1930	2250×1640×2030	2250×1640×200	2250×1640×20	2250×1640×23	2250×1640×23
	Package	mm	2040×1500×2060	2340×1700×2160	2340×1700×2160	2340×1700×21	2450×1750×25	2450×1750×25
Loading quantity	40'GP	set	7	5	5	5	4	4
	40'HQ	set	7	5	5	5	4	4

Note:  
1. The specification is base on 100% return air, 100% fresh air model is also available for the same range.  
2. The power input of motor is subjected to the external static pressure, please refer to the brand for the accurate value.

## Air Handling Unit

### Hydronic Air Handling Unit

It is a kind of air handling unit that the function section could be chosen customized according to various project requirement.



Washable filter



Quiet function



Compact design



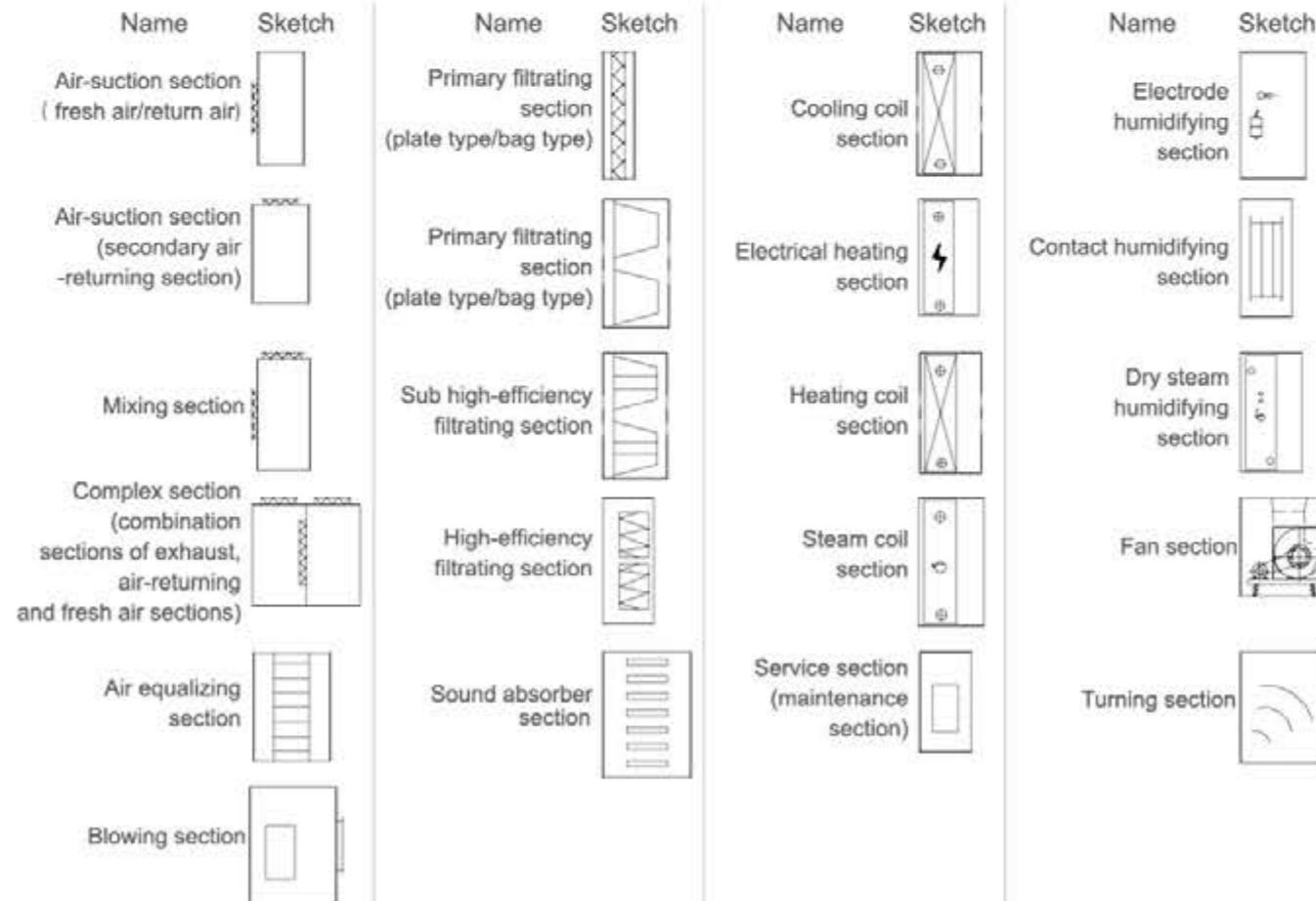
Easier maintainability



Item	Nominal test
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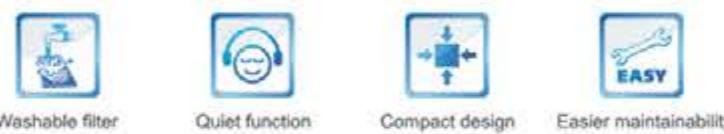
Spec. GZK	Section dimension		Airflow volume against air velocity					Cooling capacity under air return condition kW	Cooling capacity under fresh air condition kW	Air supply total pressure Pa	
	W(mm)	H(mm)	Unit	2(m/s)	2.25(m/s)	2.5(m/s)	2.75(m/s)	3(m/s)			
0804	850	450	m <sup>3</sup> /h	1128	1269	1410	1552	1693	6.14	17.28	400~1200
			CFM	663	746	829	911	994			
0806	850	650	m <sup>3</sup> /h	1975	2221	2468	2715	2962	10.24	29.50	400~1200
			CFM	1160	1305	1450	1595	1740			
0808	850	850	m <sup>3</sup> /h	2821	3174	3526	3879	4231	15.35	41.71	400~1200
			CFM	1657	1864	2071	2278	2486			
1008	1050	850	m <sup>3</sup> /h	3735	4202	4669	5136	5603	20.44	53.95	400~1200
			CFM	2194	2468	2743	3017	3291			
1208	1250	850	m <sup>3</sup> /h	4650	5231	5812	6393	6975	25.56	66.116	400~1200
			CFM	2731	3073	3414	3756	4097			
1608	1650	850	m <sup>3</sup> /h	6479	7288	8098	8908	9718	36.81	94.162	400~1200
			CFM	3806	4281	4787	5233	5708			
1010	1050	1050	m <sup>3</sup> /h	4856	5463	6070	6677	7284	25.57	69.124	400~1500
			CFM	2852	3209	3566	3922	4279			
1210	1250	1050	m <sup>3</sup> /h	6045	6800	7556	8311	9067	32.72	86.151	400~1500
			CFM	3551	3995	4438	4882	5326			
1610	1650	1050	m <sup>3</sup> /h	8351	9395	10438	11482	12526	46.104	122.209	400~1500
			CFM	4905	5519	6132	6745	7358			
2010	2050	1050	m <sup>3</sup> /h	10728	12069	13410	14751	16092	62.127	147.254	400~1500
			CFM	6302	7090	7877	8665	9453			
1212	1250	1250	m <sup>3</sup> /h	7811	8788	9764	10740	11717	41.83	111.195	400~1500
			CFM	4588	5162	6736	6309	6883			
1612	1650	1250	m <sup>3</sup> /h	10920	12285	13650	15015	16380	60.138	159.274	400~1500
			CFM	6415	7217	8018	8820	9622			
2012	2050	1250	m <sup>3</sup> /h	13905	15643	17381	19119	20857	80.164	191.329	400~1500
			CFM	8168	9189	10210	11231	12252			
1616	1650	1650	m <sup>3</sup> /h	14605	16432	18258	20083	21909	81.182	213.366	400~1500
			CFM	8580	9652	10725	11797	12870			
1816	1850	1650	m <sup>3</sup> /h	16709	18798	20887	22975	25064	99.210	222.422	400~1500
			CFM	9815	11042	12209	13498	14723			
2016	2050	1650	m <sup>3</sup> /h	18612	21164	23516	25867	28219	114.222	258.445	400~1500
			CFM	11051	12432	13813	15195	16578			
2020	2050	2050	m <sup>3</sup> /h	23107	25995	28884	31772	34660	139.273	317.547	400~2000
			CFM	13573	15270	16967	18664	20360			

## Optional Function Section



## Air Curtain

The air curtain adopts cross flow blower to generate high speed air flow downward, that be installed upward side of the entrance door or window, to isolate the indoor air from the outdoor air and reduce the loss of indoor cool air, also prevent the insects and dust from entering the indoor environment.



- Optimized cross-flow fan and good performance motor are adopted.
- Micro processor controlling with high reliability and long service life.
- Anti-corrosion thanks to two-side painted electro-galvanized metal case.
- High quality galvanized steel casing with double-sided plastic spray processing, high anti-corrosion.
- Good strength structure provides powerful airflow.
- Integrated electric components, easy maintenance.
- High performance cross flow fan blade with 3D-optimized streamlined.



Model	FM-1.25-9-K	FM-1.25-12-K
Power supply	V/Hz	220-230/50
Power input	W	110
Air flow volume	m <sup>3</sup> /h	1200
Sound pressure level (HL)	dB (A)	59/56
Dimension (W×D×H)	Outline mm	900×215×193
	Package mm	1015×270×256
Net weight /gross weight	kg	16/18
Loading quantity	40'GP set	20/22
	40'HQ set	660
Setting height	m	746
Standard	2.3~3	2.3~3
	Wired remote controller	ZY611
		ZY611

## Diffuser

The diffuser is applicable to various constructions for its combination of square and round types. It is with good appearance, strong air pressure, low noise, even airflow distribution and long distribution distance, etc.



Adjustable grille



Return air grille



Square diffuser

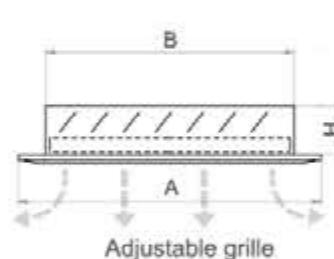
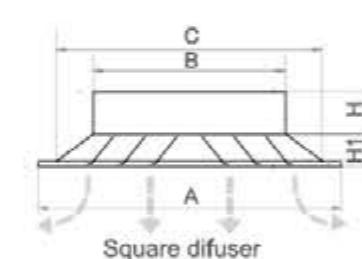
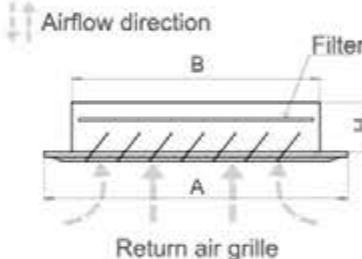


- Single Deflection Return Air Grille

The single-layer louver air inlet is equipped with filter which is detachable and mountable.

- Adjustable Double Deflection Grille

The dual-layer grille type air outlet can adjust the airflow to each corner.



### Installation Dimension

#### Adjustable grille

Model	Throat B	A	H
FKSB6312	630×120	670×160	46
FKSB10012	1000×120	1040×160	43

#### Return air grille

Model	Throat B	A	H
FKDB45	375×375	445×448	60
FKDB60	517×517	598×598	60
FKDB6325	630×253	685×308	28
FKDB10025	1005×260	1034×290	30

#### Square diffuser

Model	Throat B	A	C	H	H1
FKFS45	270×270	448×448	Φ365	25	25
FKFS60	368×368	598×598	Φ485	27	34

### Control System Lineup

Control system	Product series	Concealed Ceiling Type/High ESP Duct Type	Cassette type	Floor ceiling type	Wall mounted type	Air curtain
Wireless remote controller	YB1FA					
	ZYB11 <sup>1</sup>					
Wired controller	Z4E351B					
Mechanical FCU controller	Z54352A1					
Digital thermostat	Luxury WK-010PA-K					
	WK-110PA0					
Long-distance monitoring software	Gree AC Eudemon 2009 <sup>2</sup>					
BMS accessories	ME30-17/E2(M)					
	DQ34 <sup>3</sup>					
	ZJ0212					
Other modules	Optoelectronic isolated converter	RS232-RS422/485				
	Optoelectronic isolated signal multiplier	RS-422/485				

#### Note:

means standard, means optional.

\*1 The pictures of unit and wireless remote controller please refer to the actual product.

\*2 If long-distance monitoring software Gree Eudemon 2009 is selected, the communication module ME30-17/E2(M) shall be selected also.

The selection shall refer to actual models.

\*3 DQ34 including wired remote controller Z4E351B and Communication module ZJ0212, so if DQ34 is selected, the wired remote controller Z54352A1 is not necessary to selected. ME30-17/E2(M) is not necessary also.

# SPECIALIZED AC

**Marine Air Conditioner  
Elevator Air Conditioner  
Close Control Air Conditioner**



# Marine Air Conditioner

It is a kind of sea water source AC that is widely used in yachts and boats.



Display Panel  
Z5A35

R410A

R410A

# Elevator Air Conditioner

Elevator air conditioner is specially designed for temperature control of elevators in hotel, office building and residential building. The unit is with beautiful appearance, compact structure, complete functions and reliable performance, which can satisfy different customers' requirements.



2~3 kW



YB1FA(XFAN)



Golden fin  
condenser



Inner groove  
copper



Washable  
filter



Quiet  
function



Self-diagnosis



Memory  
function



Compact  
design



T/C/F Switch



Inner groove  
copper



Washable  
filter



Quality motor



High efficiency



Energy saving  
function



Fresh air supply  
ventilation



Low voltage  
startup



Wide voltage  
startup

- 360 degree air blowing.
- Outlay electric box for easy installation & maintenance.
- Low start-up current thanks to power delay control design.
- Forced operation available for emergency situation.
- LCD display of operation status.
- Highly anti-corrosion special spray processing on the complete unit.
- Nickel-Copper tube-in-tube heat exchanger for sea water side.
- All-copper fined tube heat exchanger for air side.
- Only one PCB for the entire control and minimize cable connections, with higher reliability and also easier maintenance.
- Universal for both 50Hz and 60Hz.



Model	Hump	CYR5/NaB-T		CYR12/NaB-T		CYR16/NaB-T	
		Cooling	W	Heating	BTU/h	W	BTU/h
Capacity	Cooling	1400	4800	2350	8000	3300	12600
	Heating	1700	5800	2550	8700	3500	11900
EER/COP	W/W	2.69/3.40	2.94/3.23	3.30/3.37	3.52/3.17	3.52/3.17	3.52/3.17
	Ph/V/Hz	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50	1/220-240/50
Power supply	Cooling	kW	0.52	kW	0.80	1.00	1.05
	Heating	kW	0.50	kW	0.79	1.04	1.20
Power input	Cooling	A	2.9	A	4.2	5.1	5.7
	Heating	A	2.8	A	4.2	5.3	5.7
Input current	Cooling	dB(A)	58	dB(A)	58	58	58
	Heating	kg	0.35	kg	0.44	0.55	0.69
Sound pressure level	Cooling	m³/h	320	Heating	470	466	600
	Heating	CFM	190	Cooling	276	275	350
Refrigerant charge volume	Cooling	mm	309×440×324	Heating	411×457×324	409×458×370	478×488×365
	Heating	mm	588×539×403	Cooling	636×594×403	636×549×437	706×635×432
Air flow volume (H/M/L)	Cooling	kg	26/31	Heating	28/34	35/41	41/48
	Heating	inch	3.6	Cooling	3.6	4.7	4.7
Dimension (W×D×H)	Cooling	inch	0.87	Heating	0.63	0.87	0.63
	Heating	inch	4.0	Cooling	3.0	3.0	2.70
Net weight/Gross weight	Cooling	set	430	Heating	360	360	324
	Heating	kg	516	Cooling	360	360	324
Fan motor supply air outlet diameter	Cooling	inch	3.6	Heating	3.6	4.7	4.7
	Heating	inch(mm)	7.244(184)	Cooling	7.244(184)	7.244(184)	7.244(184)
Condenser pipe diameter	Cooling	inch	0.276(7)	Heating	0.276(7)	0.276(7)	0.276(7)
	Heating	inch(mm)	276/345	Cooling	276/345	276/345	208/208
Loading quantity	Cooling	40'GP	set	Heating	40'GP/40HQ	set	208/208
	Heating	40HQ	set	Cooling	516	360	324

Cooling operation temperature range(°B·T)							
22~43							
Model		GDT28		GDT38			
Capacity	Heating	W	BTU/h	W	BTU/h	W	BTU/h
EER/COP				2	6824	2	10236
Power supply	Ph/V/Hz					1/220/50	1/220/50
Power input	Cooling	kW	0.52	1.00	1.05	1.2	1.2
	Heating	kW	0.50	0.79	1.04	1.20	1.20
Input current	Cooling	A	2.9	4.2	5.1	5.7	5.7
	Heating	A	2.8	4.2	5.3	5.7	5.7
Sound pressure level	dB(A)	58	58	58	58	55	55
Refrigerant charge volume	kg	0.35	0.44	0.55	0.69	0.55	0.65
Air flow volume (H/M/L)	m³/h	320	470	466	600	360	450
	CFM	190	276	275	350	212	265
Dimension (W×D×H)	Outline	mm	309×440×324	Heating	411×457×324	350×600×400	450×700×450
	Package	mm	588×539×403	Cooling	636×594×403	483×783×495	572×890×542
Net weight/Gross weight	kg	26/31	28/34	35/41	41/48	46/52	50/66
Fan motor supply air outlet diameter	inch	3.6	3.6	4.7	4.7	7.244(184)	7.244(184)
Condenser pipe diameter	inch	0.276(7)	0.276(7)	0.276(7)	0.276(7)	0.276(7)	0.276(7)
Loading quantity	40'GP	set	430	300	270	276/345	208/208
	40HQ	set	516	360	324		

# Close Control Air Conditioner

It is a kind of air cooled split AC that is widely used in equipment room, machinery room, etc. to precisely control the temperature and humidity.



Long-distance monitoring  
software (optional)  
FE30-00/A(M)



Energy saving  
function



Self-diagnosis



Modular  
structure



Easier  
maintainability



Compact  
design



Long-distance  
monitoring

Model	Normal		JKFD13C/Na-M	JKFD13QS/Na-M	JKFD13SX/Na-M	JKFD19C/Na-M	JKFD19QS/Na-M	JKFD19SX/Na-M
Power supply	Ph/V/Hz		3/380/50				3/380/50	
Cooling capacity (total/sensible)	22°C/ 50%	kW	5.0/4.5	6.9/5.9	8.8/5.8			18.0/17.0
	24°C/17°C	kW	5.3/4.8	7.2/6.5	7.2/6.5			19.0/17.4
	24°C/45%	kW	5.2/4.7	7.0/6.4	7.0/6.3			18.8/17.8
	26°C/50%	kW	5.5/5.0	7.3/6.5	7.3/6.6			20.3/18.9
Rated input	Cooling/Heating	kW	2.0/3.2	2.8/3.6	2.5/3.4			7.9/10.5
Rated current	Cooling/Heating	A	9.55/14.55	12.73/16.36	3.76/5.15			11.97/15.91
Heating capacity	kW		3	3	3			9
Humidifying	Rated capacity	kg/h	2	2	2			4
	Power input	kW	1.5	1.5	1.5			3
Range of temp. controlling and precision	°C		17~28°C±1°C	17~28°C±1°C	17~28°C±1°C			17~28°C±1°C
Range of humidity and precision	%		40~60%±5%	40~60%±5%	40~60%±5%			40~60%±5%
ESP	Pa	0	15	0	15	0	15	
	Model	Normal	JKFD5DC/Na-E(I)	JKFD5DQS/Na-E(I)	JKFD7DC/Na-E(I)	JKFD7DQS/Na-E(I)	JKFD7C/Na-E(I)	JKFD7QS/Na-E(I)
Indoor units	Air flow volume	m³/h	1850	1900	2000	2200	2000	2200
	Sound pressure level	dB(A)	61	62	61	62	61	62
	Dimension (W×D×H)	mm	800×800×2250	800×890×1950	800×890×2250	800×890×1950	1100×810×2250	1100×810×1950
	Package	mm	900×790×2370	900×790×2100	900×790×2370	900×790×2100	1200×810×2370	1200×810×2070
	Net weight/gross weight	kg	235/245	215/225	235/245	215/225	355/370	325/340
Outdoor units	Model	JKFD5/Na-E(O)	JKFD5/Na-E(O)	JKFD7/Na-E(O)	JKFD7/Na-E(O)	JKFD7/Na-E(O)	JKFD7/Na-E(O)	JKFD7/Na-E(O)
	Quantity	Set	1	1	1	1	1	1
	Air flow volume	m³/h	6200	6200	6200	6200	6200	6200
	Sound pressure level	dB(A)	64	64	64	64	64	64
Connecting pipe	Dimension (W×D×H)	mm	890×980×1000	890×980×1000	890×980×1000	890×980×1000	1060×1160×960	1060×1160×960
	Package	mm	1060×930×560	1060×930×560	1060×930×560	1060×930×560	1265×1135×540	1265×1135×540
	Net weight/gross weight	kg	60/80	60/80	60/80	60/80	100/115	100/115
	Liquid/Gas	mm	ø9.52/12	ø9.52/12	ø9.52/12	ø9.52/12	ø12/16	ø16/19
Loading quantity	Method of connection		Flared-fitting Joint					
	Loading quantity	set	0/20	20/20	0/20	20/20	0/14	14/14

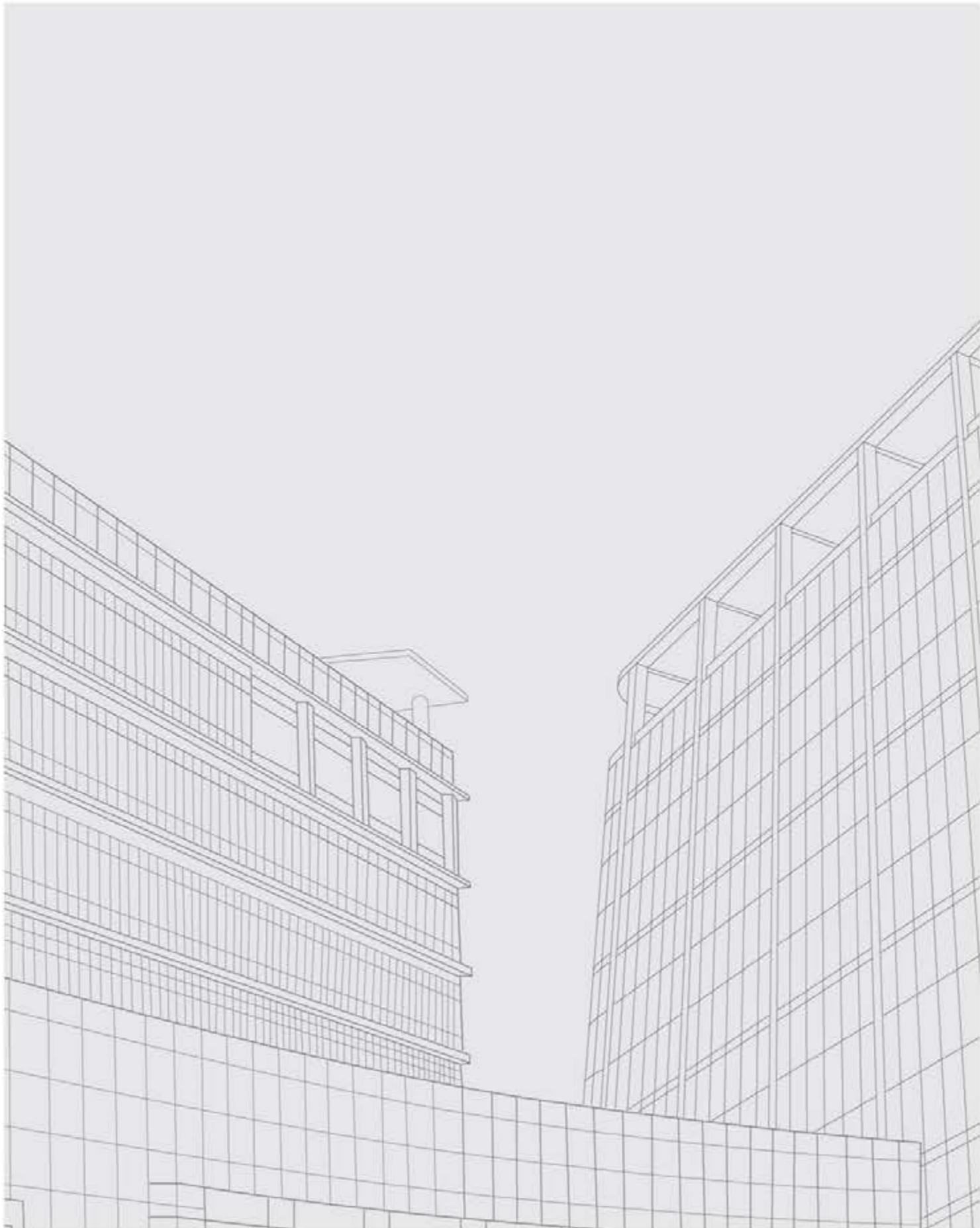
Notes:

- The cooling capacity was tested when the outdoor temperature was as follows: Dry-bulb temperature was 35°C; Wet-bulb temperature was 24°C.
- The noise value was tested in the semi-anechoic chamber but the actual value will be a little higher for the change of ambient temperature.
- The temperature range of running environment is between -35°C~48°C.

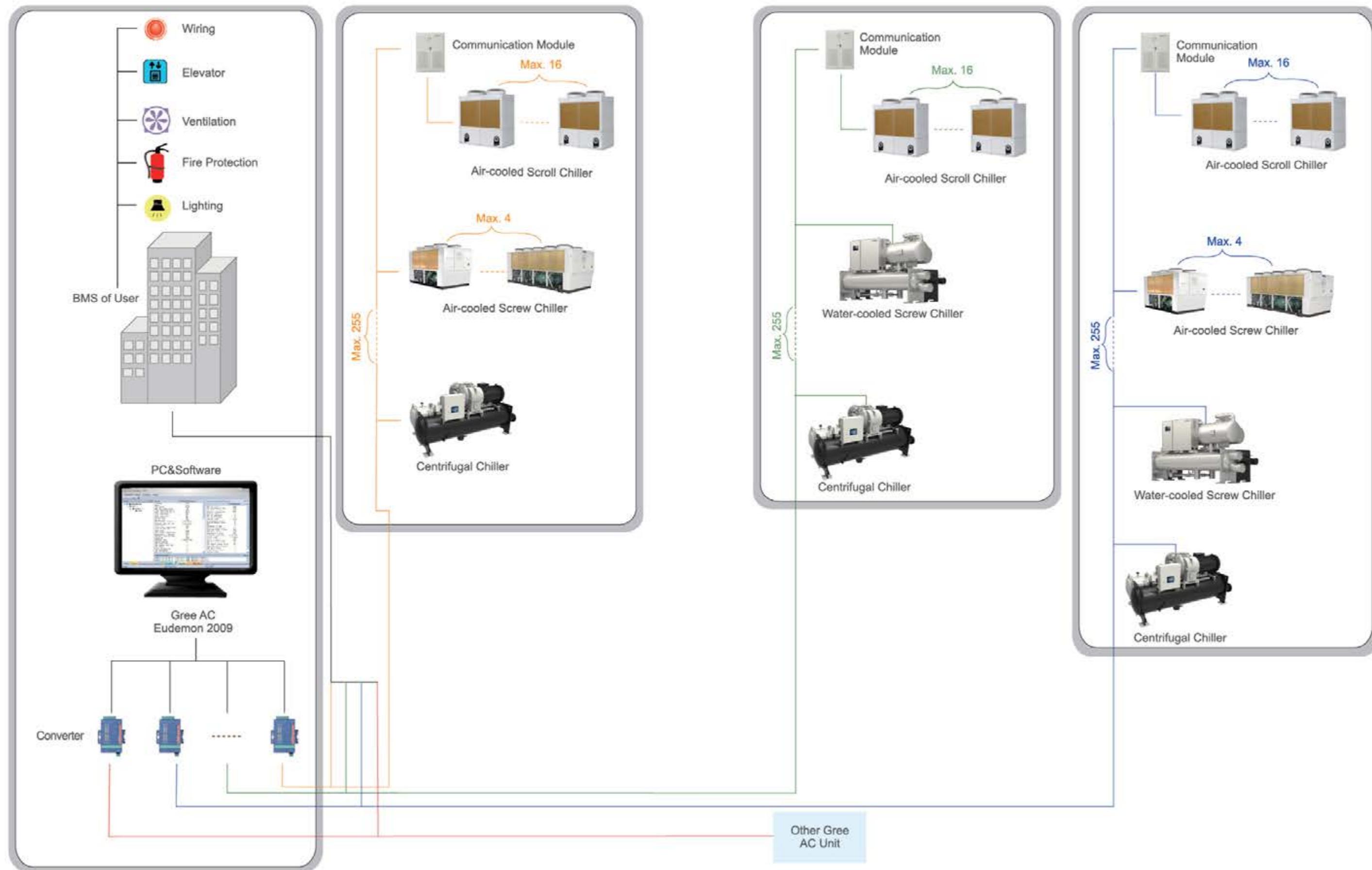
Model	Normal		JKFD25C2/Na-M	JKFD25QS2/Na-M	JKFD25SX2/Na-M	JKFD40C2/Na-M	JKFD40QS2/Na-M	JKFD40SX2/Na-M
Power supply	Ph/V/Hz		3/380/50				3/380/50	
Cooling capacity (total/sensible)	22°C/ 50%	kW	25.4/22.8				39.4/36.0	
	24°C/17°C	kW	27.0/24.3				40.0/36.1	
	24°C/45%	kW	26.4/24.4				39.2/37.5	
	26°C/50%	kW	27.6/24.5				42.5/38.0	
Rated input	Cooling/Heating	kW		11.2/13.8			16.5/21.0	
Rated current	Cooling/Heating	A		16.97/20.91			24.2/31.82	
Heating capacity	kW			12			18	
Humidifying	Rated capacity	kg/h		8			8	
	Power input	kW		6			6	
Range of temp. controlling and precision	°C			17~28°C±1°C			17~28°C±1°C	
Range of humidity and precision	%			40~60%±5%			40~60%±5%	
ESP	Pa	0	100	0	100	0	100	100
	Model	Normal	JKFD25C2/Na-M(I)	JKFD25QS2/Na-M(I)	JKFD25SX2/Na-M(I)	JKFD40C2/Na-M(I)	JKFD40QS2/Na-M(I)	JKFD40SX2/Na-M(I)
Indoor units	Air flow volume	m³/h	7800	7500	7500	13000	12500	12500
	Sound pressure level	dB(A)	66	66	66	70	70	70
	Dimension (W×D×H)	mm	1900×810×2250	1900×810×1950	1900×810×1950	2480×810×2250	2480×810×1950	2480×810×1950
	Package	mm	2000×910×2370	2000×910×2100	2000×910×2100	2580×910×2400	2580×910×2130	2580×910×2100
	Net weight/gross weight	kg	585/600	570/585	535/550	725/755	660/690	660/690
Outdoor units	Model	JKFD13/NaA-M(O)	JKFD13/NaA-M(O)	JKFD13/NaA-M(O)	JKFD19/NaA-M(O)	JKFD19/NaA-M(O)	JKFD19/NaA-M(O)	JKFD19/NaA-M(O)
	Quantity	Set	2	2	2	2	2	2
	Air flow volume	m³/h	9800				11900	
	Sound pressure level	dB(A)	64				64	
Connecting pipe	Dimension (W×D×H)	mm	1060×1160×960				1080×1180×1040	
	Package	mm	1265×1135×540				1265×1135×515	
	Net weight/gross weight	kg	100/115				100/115	
	Liquid/Gas	mm	ø12/16				ø16/19	
Loading quantity	Method of connection		Flared-fitting Joint					
	Loading quantity	set	0/7	7/7	7/7	0/6	6/6	6/6

Notes:  
1. The cooling capacity was tested when the outdoor temperature was as follows: Dry-bulb temperature was 35°C; Wet-bulb temperature was 24°C.  
2. The noise value was tested in the semi-anechoic chamber but the actual value will be a little higher for the change of ambient temperature.  
3. The temperature range of running environment is between -35°C~48°C.

Model	Normal	JKFD40C/Na-M	JKFD40QS/Na-M
Power supply	Ph/V/Hz	3/380/50	
	22°C/ 50%	kW	39.3/36.0
Cooling capacity (total/sensible)	24°C/17°C	kW	40.0/36.1
	24°C/45%	kW	39.4/37.4
	26°C/50%	kW	42.3/38.0
Rated input	Cooling/Heating	kW	16.5/21.0
Rated current	Cooling/Heating	A	34/38
Heating capacity		kW	18
Humidifying	Rated capacity	kg/h	8
	Power input	kW	6
Range of temp. controlling and precision	°C		17~28°C±1°C
Range of humidity and precision	%		40~60%±5%
ESP	Pa	0	100
	Model	JKFD40C/Na-M(I)	JKFD40QS/Na-M(I)
Indoor units	Air flow volume	m³/h	13000
	Sound pressure level	dB(A)	68
	Dimension (W×D×H)	Outline	2480×810×2250
		Package	2560×910×2480
	Net weight/gross weight	kg	755/795
	Model	JKFD40/Na-M(O)	JKFD40/Na-M(O)
Outdoor units	Quantity	Set	1
	Air flow volume	m³/h	23800
	Sound pressure level	dB(A)	64
	Dimension (W×D×H)	Outline	2500×1150×1250
		Package	2600×1280×1410
	Net weight/gross weight	kg	240/280
Connecting pipe	Liquid/Gas	mm	ø19/22
	Method of connection		Soldering Joint
Loading quantity	40'GP/40'HQ	--	0/4
			4/4



## LONG-DISTANCE CONTROL SYSTEM



## REFERENCE PROJECTS



CECMED National Drug Laboratory  
Water-cooled Screw Chiller; Hydronic Air Handling Unit; Fan Coil Unit  
Cuba



Bahcelievler Government Hospital  
GMV  
Turkey



B.N. Eltsin's Community Center  
GMV  
Russia



Trading Building  
Air Cooled Screw Chiller  
Oman



Conad Supermarket  
GMV  
Italy



Al-Bustan Hotel  
GMV  
Yemen



Bella Roma Hotel  
GMV  
Iraq



XCMG Brasil  
GMV  
Brazil

## Reference Projects Lineup

Country	Project Name	Installed Series
Panama	Panama De Universidad Technology	GMV
Cuba	CECMED National Drug Laboratory	Water-cooled Screw Chiller; Hydronic Air Handling Unit; Fan Coil Unit
India	The Research & Development Headquarters of Biocon	Air-cooled Screw Chiller; Water-cooled Screw Chiller
Laos	State Power Corporation of Laos	GMV
Bahrain	IBN School	Rooftop Package Unit
Kuwait	Substation for Ministry of Electricity and Water	Rooftop Package Unit
Libya	Rail Station	Air-cooled Screw Chiller
Turkey	Adana Sabanci Mosque	GMV
Turkey	Bahcelievler Government Hospital	GMV
Turkey	Nursery House	GMV
Russia	Arbitration Tribunal	GMV
Russia	Design and Construction Department	GMV
Russia	Court of Law	GMV
Russia	Design and Research Institute	GMV
Russia	Office of Russian Federal Tax Service	GMV
Russia	B.N. Eltsin's Community Center of Uralskiy region	GMV
Russia	Transport and Logistics Centre	Duct Split Unit
Laos	Lao Telecom	Air-cooled Screw Chiller; Closed Control Air Conditioner
Laos	Agriculture Promotion Bank	GMV
Bahrain	Millennium Tower	Fan Coil Unit
Oman	Trading Building	Air-cooled Screw Chiller
Turkey	Tepe Home Project	GMV
Turkey	Adiyaman Patisserie	GMV
Turkey	Suluntepe Sport Complex	GMV
Russia	Green Park Commercial Center	GMV
Iraq	NawRoz City	Super Free Match
Iraq	Lebanese Village	DC Inverter GMV; U-Match; Super Free Match; Air-cooled Screw Chiller
Iraq	New Eskan Project	Super Free Match
Libya	Land Registration Department	GMV
Turkey	Istanbul Kabatas Residence	GMV
Russia	Greenwood	GMV
Italy	Conad Supermarket	GMV
Russia	Furniture Trading centre	GMV
Russia	Tools Shop	U-Match
Ghana	Atlantic Hotel	GMV
Bahrain	Swiss Bell Hotel	GMV
Qatar	Hilton Garden Inn	Fan Coil Unit
Yemen	Al-Bustan	GMV
Turkey	Antalya Neccar Hotel	GMV
Russia	Lighthouse Hotel	GMV
Brazil	XCMG Brasil	GMV
Qatar	DVAC Factory	Rooftop Package Unit; Duct Split Unit
Turkey	OASIS Factory	GMV
Russia	TTS Tooltechnic Systems AG & Co	GMV
Russia	Aircraft Plant	U-Match
Russia	All-Russian Sectoral Textile Complex	Duct Split Unit
India	Biocon R&D Building	Water-cooled Screw Chiller
Jordan	Medical Clinics Building	U-Match
Greece	Armonia Rehabilitation Medical Center	GMV
Croatia	Ex. Dairy Put Murvice	Free Match
Iraq	Phoenix Hotel	Rooftop Package Unit
Macao, China	Nittobo Glass Weaving	Water-cooled Screw Chiller
Australia	SKF	Heat Recovery GMV

## Note

## Note

## Note

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## Note

## Award and Certification



ISO 9001 Quality System Certificate



ISO 14001 Environment Management System Certificate



ISO 18001 Occupational Health and Safety System Certificate



Canadian CSA Certificate



German TÜV Certificate



IEC Certificate



European Communities CE Certificate



American UL Certificate



Russian Safety Certificate



EID Certificate



SASO Certificate



Mexican NOM Safety Certificate



German GS Certificate



European EMC Certificate



Argentina Safety Certificate



China EMC Certificate



Hong Kong Energy-saving Certificate



Hong Kong Safety Certificate



Australian SAA Safe Certificate



Australia SAA Certificate



CGG Certificate



America ETL Certificate



Canadian ETL Certificate



Thailand TID Certificate