

# GMV WATER DC INVERTER VRF UNITS

(GC201705)

ER CONDITIONERS GREE MAKING BETTER CONDITIONERS GREE MAKING BETTER CONDITIONERS GREE MAKING BETTER CONDITIONERS GREE MAKING BETTER CONDITIONERS

TECHNICAL SALES GUIDE-50Hz&60Hz

CAPACITY RANGE: 22.4~134.0kW

SUPER HIGH AMBIENT OPERATION TO 52 °C

ER CONDITIONERS GREE MAKING BETTER CONDITIONERS GREE MAKING BETTER CONDITIONERS GREE MAKING BETTER CONDITIONERS GREE MAKING BETTER CONDITIONERS



# CONTENTS

1 UNIT CHARACTERISTICS .....	1
2 NOMENCLATURE .....	2
3 UNIT PARAMETERS .....	3
4 ELECTRICAL SPECIFICATIONS.....	13
5 COMBINATION MODE.....	16
6 INTERNAL PIPING DESIGN OF THE UNITS .....	18
7 UNIT CAPACITY CORRECTION .....	19
8 UNIT NOISE CURVES .....	39
9 UNIT GRAVITY CENTER DIAGRAMS .....	41
10 UNIT INSTALLATION SPACE REQUIREMENTS .....	41
11 MODEL SELECTION FOR UNIT PIPING.....	45
12 REQUIREMENTS FOR COMMUNICATION MODE .....	53
13 ELECTRICAL CONNECTION.....	59
14 CALCULATION METHOD OF REFRIGERANT ADDED FOR ENGINEERING PIPING ..	62
15 OPTIONAL COMPONENTS.....	64
16 UNIT OPERATING RANGE .....	64
17 WATER QUALITY REQUIREMENTS .....	65

## 1 UNIT CHARACTERISTICS

Outdoor unit of water source heat pump multi-VRF unit adopts closed-type cooling water to conduct heat exchange with refrigerant, and can form the outdoor units with multiple cooling capacity in combination with modules, also the indoor units can be formed with multiple modules.



GMV water source heat pump multi-VRF unit has both the characteristics of water source system and DC inverter multi-VRF unit, which possesses the high-efficiency and energy-saving features of chiller and comfort flexibility of multi-VRF unit, and is a new air-conditioning system scheme for high-rise building, villa, hotel, office building, shopping mall, hospital, etc.

Outer energy of GMV water source heat pump multi-VRF unit

The Gree self-developed water source heat pump multi-VRF air-conditioning unit can combine with water source, soil source or related regenerative energy, which can improve the operating efficiency and reduce the energy consumption. The water source side can be cooling tower or boiler, and can also be different regenerative resources: heat energy of surface water (river, lake, sea), ground water, soil heat energy, solar energy and waste energy such as industrial waste heat, sanitary waste, etc.

Composition of GMV water source heat pump multi-VRF unit

GMV water source heat pump multi-VRF unit system is divided into two parts: the first part is water system for heat exchange between outdoor unit and water/ground source——there are multiple specific using types for water source/ground source, which can work with constant temperature water/ground source, cooling tower, boiler, etc. Compared with traditional air-cooled unit, it is more energy-saving and can save more space; the second part is multi-VRF refrigerant system from outdoor unit to indoor unit——which has multiple strong points such as flexible installation, easy construction, intelligent control, etc. as the traditional multi-VRF unit, the structure of indoor unit has multiple structures, which can be applied to different locations.

Installation of unit can be applied to different constructions

GMV water source heat pump multi-VRF unit can be installed to different constructions, which will not impact the appearance of construction. The water source heat pump multi-VRF unit needs not to conduct heat exchange with outdoor air, thus its installing position can fit the structure of construction and will not impact the integrated appearance of building.

It will not be impacted by the weather

Water source heat pump multi-VRF unit conducts heat exchange through water and ground source outdoors, which will not be impacted by the seasons and temperature, especially when it conducts heating in winter, the air-cooled outdoor unit will have no frost, nor defrosting operation, which can ensure the stable heating effect.

GMV water source heat pump multi-VRF adopts the same CAN communication as GMV5.

## 2 NOMENCLATURE

GMV	□	-	□	□	□	□	□	W	□	/	□	□	□	(□)
1	2		3	4	5	6	7	8	9		10	11	12	13

No.	Description	Options
1	Product code	GMV—Gree Multi VRF Units
2	Suitable climate	Blank—T1 condition; T2—Low temperature climate; T3—High temperature climate
3	RAC or CAC	RAC—H CAC—Default
4	Special function	G—High sensible heat V—Low-temperature heat pump Default—Without special function
5	Unit type	DC inverter—Default Y—Solar power
6	Function code	Q—Heat Recovery; S—Water Heater; W—Water-cooled Unit; X—Fresh Air Unit Z—Reheat dehumidifier Default—If above functions are unavailable.
7	Code of cooling capacity	Nominal capacity/100(W)
8	Code for outdoor unit	W—Outdoor unit
9	Unit structure	M—Modular (top discharge); L—Non-modular (side discharge); Default—Non-modular (top discharge)
10	Refrigerant	R410A (omit)
11	Design No.	Named in order of A, B, C, or combined with 1, 2, 3...
12	Power supply	7000~18000W, 1 phase—omit; 3 phase—S
13	Special code	For special area; leave blank if it is not for special area



## 3 UNIT PARAMETERS

### 3.1 Outdoor Unit

Model (assembled unit)		-	-	-	GMV-W448WM/A-X
Model (single unit)		GMV-W224WM/A-X	GMV-W280WM/A-X	GMV-W335WM/A-X	GMV-W224WM/A-X + GMV-W224WM/ A-X
Cooling Capacity	kW	22.4	28.0	33.5	44.8
Heating Capacity	kW	25.0	31.5	37.5	50
Noise (semi-anechoic)	dB(A)	50	52	52	53
Noise (anechoic)	dB(A)	47	49	49	50
Noise (sound power)	dB(A)	69	70	70	-
Rated Water Flow	m <sup>3</sup> /h	4.8	6	7.2	9.6
Water Drop Pressure	kPa	16	24	45	-
Power Supply		380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz
Rated Power	Cooling	kW	3.9	5.7	7.9
	Heating	kW	4.0	5.4	7.35
Dimension (W×D×H)		mm	780×550×1000	780×550×1000	780×550×1000 (2 sets)
Moistureproof Level			IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	9.52	9.52	12.7
	Gas Pipe	mm	22.2	22.2	25.4
	Oil Balancing Pipe	mm	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection
Net Weight		kg	162	162	162
Min. circuit current		A	16.1	19.7	26.8
Max. fuse current		A	20	20	32

Model (assembled unit)		GMV-W504WM/A-X	GMV-W560WM/A-X	GMV-W615WM/A-X	GMV-W670WM/A-X	
Model (single unit)		GMV-W224WM/A-X +GMV-W280WM/ A-X	GMV-W280WM/A-X +GMV-W280WM/ A-X	GMV-W335WM/A-X +GMV-W280WM/ A-X	GMV-W335WM/A-X +GMV-W335WM/ A-X	
Cooling Capacity	kW	50.4	56.0	61.5	67.0	
Heating Capacity	kW	56.5	63.0	69.0	75.0	
Noise (semi-anechoic)	dB(A)	54	55	55	55	
Noise (anechoic)	dB(A)	51	52	52	52	
Rated Water Flow	m <sup>3</sup> /h	10.8	12.0	13.2	14.4	
Power Supply		380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	
Rated Power	Cooling	kW	3.9+5.7	5.7+5.7	5.7+7.9	7.9+7.9
	Heating	kW	4.0+5.4	5.4+5.4	5.4+7.35	7.35+7.35
Dimension (W×D×H)		mm	780×550×1000 (2 sets)	780×550×1000 (2 sets)	780×550×1000 (2 sets)	780×550×1000 (2 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	15.9	15.9	15.9	15.9
	Gas pipe	mm	28.6	28.6	28.6	28.6
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162	162+162	162+162	162+162
Min. circuit current		A	16.1+19.7	19.7+19.7	19.7+26.8	26.8+26.8
Max. fuse current		A	20+20	20+20	20+32	32+32

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Model (assembled unit)		GMV-W728WM/A-X	GMV-W784WM/A-X	GMV-W840WM/A-X	GMV-W895WM/A-X	
Model (single unit)		GMV-W224WM/A-X +GMV-W224WM/ A-X +GMV-W280WM/ A-X	GMV-W224WM/A-X +GMV-W280WM/ A-X +GMV-W280WM/ A-X	GMV-W280WM/A-X +GMV-W280WM/ A-X +GMV-W280WM/ A-X	GMV-W280WM/A-X +GMV-W280WM/ A-X +GMV-W335WM/ A-X	
Cooling Capacity	kW	72.8	78.4	84.0	89.5	
Heating Capacity	kW	81.5	88.0	94.5	100.5	
Noise (semi-anechoic)	dB(A)	56	57	57	57	
Noise (all-anechoic)	dB(A)	53	54	54	54	
Rated Water Flow	m <sup>3</sup> /h	15.6	16.8	18.0	19.2	
Power Supply		380 ~ 415V 3N~ 50/60Hz	380 ~ 415V 3N~ 50/60Hz	380 ~ 415V 3N~ 50/60Hz	380 ~ 415V 3N~ 50/60Hz	
Rated Power	Cooling	kW	3.9+3.9+5.7	3.9+5.7+5.7	5.7+5.7+5.7	5.7+5.7+7.9
	Heating	kW	4.0+4.0+5.4	4.0+5.4+5.4	5.4+5.4+5.4	5.4+5.4+7.35
Dimension (W×D×H)		mm	780×550×1000 (3 sets)	780×550×1000 (3 sets)	780×550×1000 (3 sets)	780×550×1000 (3 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	19.1	19.1	19.1	19.1
	Gas pipe	mm	31.8	31.8	31.8	31.8
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method		Soldering	Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method		Male Thread Connection	Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162+162	162+162+162	162+162+162	162+162+162
Min. circuit current		A	16.1+16.1+19.7	16.1+19.7+19.7	19.7+19.7+19.7	19.7+19.7+26.8
Max. fuse current		A	20+20+20	20+20+20	20+20+20	20+20+32

Model (assembled unit)		GMV-W950WM/A-X	GMV-W1005WM/A-X	GMV-W1064WM/A-X	GMV-W1120WM/A-X	
Model (single unit)		GMV-W280WM/A-X +GMV-W335WM/A-X +GMV-W335WM/A-X	GMV-W335WM/A-X +GMV-W335WM/A-X +GMV-W335WM/A-X	GMV-W224WM/A-X +GMV-W280WM/A-X +GMV-W280WM/A-X +GMV-W280WM/A-X	GMV-W280WM/A-X +GMV-W280WM/A-X +GMV-W280WM/A-X +GMV-W280WM/A-X	
Cooling Capacity	kW	95.0	100.5	106.4	112.0	
Heating Capacity	kW	106.5	112.5	119.5	126.0	
Noise (semi-anechoic)	dB(A)	57	57	58	59	
Noise (all-anechoic)	dB(A)	54	54	55	56	
Rated Water Flow	m <sup>3</sup> /h	20.4	21.6	22.8	24.0	
Power Supply		380 ~ 415V 3N~50/60Hz	380 ~ 415V 3N~50/60Hz	380 ~ 415V 3N~50/60Hz	380 ~ 415V 3N~50/60Hz	
Rated Power	Cooling	kW	5.7+7.9+7.9	7.9+7.9+7.9	3.9+5.7+5.7+5.7	5.7+5.7+5.7+5.7
	Heating	kW	5.4+7.35+7.35	7.35+7.35+7.35	4.0+5.4+5.4+5.4	5.4+5.4+5.4+5.4
Dimension (W×D×H)		mm	780×550×1000 (3 sets)	780×550×1000 (3 sets)	780×550×1000 (4 sets)	780×550×1000 (4 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	19.1	19.1	19.1	19.1
	Gas pipe	mm	31.8	38.1	38.1	38.1
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162+162	162+162+162	162+162+162+162	162+162+162+162
Min. circuit current		A	19.7+26.8+26.8	26.8+26.8+26.8	16.1+19.7+19.7+19.7	19.7+19.7+19.7+19.7
Max. fuse current		A	20+32+32	32+32+32	20+20+20+20	20+20+20+20

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Model (assembled unit)		GMV-W1175WM/ A-X	GMV-W1230WM/ A-X	GMV-W1285WM/ A-X	GMV-W1340WM/ A-X	
Model (single unit)		GMV-W280WM/A-X +GMV-W280WM/ A-X +GMV-W280WM/ A-X +GMV-W335WM/ A-X	GMV-W280WM/A-X +GMV-W280WM/ A-X +GMV-W335WM/ A-X +GMV-W335WM/ A-X	GMV-W280WM/A-X +GMV-W335WM/ A-X +GMV-W335WM/ A-X +GMV-W335WM/ A-X	GMV-W335WM/A-X +GMV-W335WM/ A-X +GMV-W335WM/ A-X +GMV-W335WM/ A-X	
Cooling Capacity	kW	117.5	123.0	128.5	134.0	
Heating Capacity	kW	132.0	138.0	144.0	150.0	
Noise (semi-anechoic)	dB(A)	59	59	59	59	
Noise (all-anechoic)	dB(A)	56	56	56	56	
Rated Water Flow	m <sup>3</sup> /h	25.2	26.4	27.6	28.8	
Power Supply		380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	380~415V 3N~ 50/60Hz	
Rated Power	Cooling	kW	5.7+5.7+5.7+7.9	5.7+5.7+7.9+7.9	5.7+7.9+7.9+7.9	7.9+7.9+7.9+7.9
	Heating	kW	5.4+5.4+5.4+7.35	5.4+5.4+7.35+7.35	5.4+7.35+7.35+7.35	7.35+7.35+ 7.35+7.35
Dimension (W×D×H)		mm	780×550×1000 (4 sets)	780×550×1000 (4 sets)	780×550×1000 (4 sets)	780×550×1000 (4 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	19.1	19.1	19.1	19.1
	Gas pipe	mm	38.1	38.1	38.1	38.1
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162+162+162	162+162+162+162	162+162+162+162	162+162+162+162
Min. circuit current		A	19.7+19.7+19.7+26.8	19.7+19.7+26.8+26.8	19.7+26.8+26.8+26.8	26.8+26.8+26.8+26.8
Max. fuse current		A	20+20+20+32	20+20+32+32	20+32+32+32	32+32+32+32

## NOTES:

- Design of this unit adopts the standard of [Q/GD 20.00. 046-2012](#);
- Cooling conditions of the above models: indoor dry/wet bulb temperature (27/19 °C ), water-in temperature 30 °C (rated water flow); heating conditions of the above models: indoor dry/wet bulb temperature (20/15°C ), water-in temperature 20°C (rated water flow).
- Parameters of unit may differ due to improvement of product, there will be no further notification. For specific parameters please subject to nameplate of product.

Model (assembled unit)		-	-	-	GMV-W448WM/A-F	
Model (single unit)		GMV-W224WM/A-F	GMV-W280WM/A-F	GMV-W335WM/A-F	GMV-W224WM/A-F +GMV-W224WM/A-F	
Cooling Capacity	kW	22.4	28.0	33.5	44.8	
Heating Capacity	kW	25.0	31.5	37.5	50	
Noise (semi-anechoic)	dB(A)	50	52	52	53	
Noise (all-anechoic)	dB(A)	47	49	49	50	
Noise (sound power)	dB(A)	69	70	70	-	
Rated Water Flow	m <sup>3</sup> /h	4.8	6	7.2	9.6	
Water Drop Pressure	KPa	16	24	45	-	
Power Supply		208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	
Rated Power	Cooling	kW	3.9	5.7	7.9	3.9+3.9
	Heating	kW	4.0	5.4	7.35	4.0+4.0
Dimension (W×D×H)		mm	780×550×1000	780×550×1000	780×550×1000 (2 sets)	
Moistureproof Level			IP1X	IP1X	IP1X	
Connecting Pipe	Liquid Pipe	mm	9.52	9.52	12.7	12.7
	Gas pipe	mm	22.2	22.2	25.4	28.6
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162	162	162	162+162
Min. circuit current		A	32.3	34.2	45.1	32.3+32.3
Max. fuse current		A	50	60	80	50+50

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Model (assembled unit)		GMV-W504WM/A-F	GMV-W560WM/A-F	GMV-W615WM/A-F	GMV-W670WM/A-F	
Model (single unit)		GMV-W224WM/A-F +GMV-W280WM/ A-F	GMV-W280WM/A-F +GMV-W280WM/ A-F	GMV-W335WM/A-F +GMV-W280WM/ A-F	GMV-W335WM/A-F +GMV-W335WM/ A-F	
Cooling Capacity	kW	50.4	56.0	61.5	67.0	
Heating Capacity	kW	56.5	63.0	69.0	75.0	
Noise (semi-anechoic)	dB(A)	54	55	55	55	
Noise (all-anechoic)	dB(A)	51	52	52	52	
Rated Water Flow	m <sup>3</sup> /h	10.8	12.0	13.2	14.4	
Power Supply		208~230V 3N~ 60Hz	208~230V 3N~ 60Hz	208~230V 3N~ 60Hz	208~230V 3N~ 60Hz	
Rated Power	Cooling	kW	3.9+5.7	5.7+5.7	5.7+7.9	7.9+7.9
	Heating	kW	4.0+5.4	5.4+5.4	5.4+7.35	7.35+7.35
Dimension (W×D×H)		mm	780×550×1000 (2 sets)	780×550×1000 (2 sets)	780×550×1000 (2 sets)	780×550×1000 (2 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	15.9	15.9	15.9	15.9
	Gas pipe	mm	28.6	28.6	28.6	28.6
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162	162+162	162+162	162+162
Min. circuit current	A	32.3+34.2	34.2+34.2	34.2+45.1	45.1+45.1	
Max. fuse current	A	50+60	60+60	60+80	80+80	

Model (assembled unit)		GMV-W728WM/A-F	GMV-W784WM/A-F	GMV-W840WM/A-F	GMV-W895WM/A-F
Model (single unit)		GMV-W224WM/A-F +GMV-W224WM/A-F +GMV-W280WM/A-F	GMV-W224WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F	GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F	GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W335WM/A-F
Cooling Capacity	kW	72.8	78.4	84.0	89.5
Heating Capacity	kW	81.5	88.0	94.5	100.5
Noise (semi-anechoic)	dB(A)	56	57	57	57
Noise (all-anechoic)	dB(A)	53	54	54	54
Rated Water Flow	m <sup>3</sup> /h	15.6	16.8	18.0	19.2
Power Supply		208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz
Rated Power	Cooling	kW	3.9+3.9+5.7	3.9+5.7+5.7	5.7+5.7+5.7
	Heating	kW	4.0+4.0+5.4	4.0+5.4+5.4	5.4+5.4+5.4
Dimension (W×D×H)		mm	780×550×1000 (3 sets)	780×550×1000 (3 sets)	780×550×1000 (3 sets)
Moistureproof Level			IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	19.1	19.1	19.1
	Gas pipe	mm	31.8	31.8	31.8
	Oil Balancing Pipe	mm	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162+162	162+162+162	162+162+162
Min. circuit current		A	32.3+32.3+34.2	32.3+34.2+34.2	34.2+34.2+45.1
Max. fuse current		A	50+50+60	50+60+60	60+60+80



# GMV WATER DC Inverter VRF Units Technical Sales Guide

Model (assembled unit)		GMV-W950WM/A-F	GMV-W1005WM/A-F	GMV-W1064WM/A-F	GMV-W1120WM/A-F	
Model (single unit)		GMV-W280WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F	GMV-W335WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F	GMV-W224WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F	GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F	
Cooling Capacity	kW	95.0	100.5	106.4	112.0	
Heating Capacity	kW	106.5	112.5	119.5	126.0	
Noise (semi-anechoic)	dB(A)	57	57	58	59	
Noise (all-anechoic)	dB(A)	54	54	55	56	
Rated Water Flow	m <sup>3</sup> /h	20.4	21.6	22.8	24.0	
Power Supply		208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	
Rated Power	Cooling	kW	5.7+7.9+7.9	7.9+7.9+7.9	3.9+5.7+5.7+5.7	5.7+5.7+5.7+5.7
	Heating	kW	5.4+7.35+7.35	7.35+7.35+7.35	4.0+5.4+5.4+5.4	5.4+5.4+5.4+5.4
Dimension (W×D×H)		mm	780×550×1000 (3 sets)	780×550×1000 (3 sets)	780×550×1000 (4 sets)	780×550×1000 (4 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	19.1	19.1	19.1	19.1
	Gas pipe	mm	31.8	38.1	38.1	38.1
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162+162	162+162+162	162+162+162+162	162+162+162+162
Min. circuit current		A	34.2+45.1+45.1	45.1+45.1+45.1	32.3+34.2+34.2+34.2	34.2+34.2+34.2+34.2
Max. fuse current		A	60+80+80	80+80+80	50+60+60+60	60+60+60+60

Model (assembled unit)		GMV-W1175WM/A-F	GMV-W1230WM/A-F	GMV-W1285WM/A-F	GMV-W1340WM/A-F	
Model (single unit)		GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W335WM/A-F	GMV-W280WM/A-F +GMV-W280WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F	GMV-W280WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F	GMV-W335WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F +GMV-W335WM/A-F	
Cooling Capacity	kW	117.5	123.0	128.5	134.0	
Heating Capacity	kW	132.0	138.0	144.0	150.0	
Noise (semi-anechoic)	dB(A)	59	59	59	59	
Noise (all-anechoic)	dB(A)	56	56	56	56	
Rated Water Flow	m <sup>3</sup> /h	25.2	26.4	27.6	28.8	
Power Supply		208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	208~230V 3N~60Hz	
Rated Power	Cooling	kW	5.7+5.7+5.7+7.9	5.7+5.7+7.9+7.9	5.7+7.9+7.9+7.9	7.9+7.9+7.9+7.9
	Heating	kW	5.4+5.4+5.4+7.35	5.4+5.4+7.35+7.35	5.4+7.35+7.35+7.35	7.35+7.35+7.35+7.35
Dimension (W×D×H)		mm	780×550×1000 (4 sets)	780×550×1000 (4 sets)	780×550×1000 (4 sets)	780×550×1000 (4 sets)
Moistureproof Level			IP1X	IP1X	IP1X	IP1X
Connecting Pipe	Liquid Pipe	mm	19.1	19.1	19.1	19.1
	Gas pipe	mm	38.1	38.1	38.1	38.1
	Oil Balancing Pipe	mm	9.52	9.52	9.52	9.52
	Connecting Method			Soldering	Soldering	Soldering
Water Pipe	Inlet Pipe	mm	DN32	DN32	DN32	DN32
	Outlet Pipe	mm	DN32	DN32	DN32	DN32
	Max. Water Pressure	MPa	1.96	1.96	1.96	1.96
	Connecting Method			Male Thread Connection	Male Thread Connection	Male Thread Connection
Net Weight		kg	162+162+162+162	162+162+162+162	162+162+162+162	162+162+162+162
Min. circuit current		A	34.2+34.2+34.2+45.1	34.2+34.2+45.1+45.1	34.2+45.1+45.1+45.1	45.1+45.1+45.1+45.1
Max. fuse current		A	60+60+60+80	60+60+80+80	60+80+80+80	80+80+80+80

**NOTES:**

- Design of this unit adopts the standard of [Q/GD 20.00. 046-2012](#);
- Cooling conditions of the above models: indoor dry/wet bulb temperature (27/19 °C ), water-in temperature 30 °C (rated water flow); heating conditions of the above models: indoor dry/wet bulb temperature (20/15°C ), water-in temperature 20°C (rated water flow).
- Parameters of unit may differ due to improvement of product, there will be no further notification. For specific parameters please subject to nameplate of product.

## 4 ELECTRICAL SPECIFICATIONS

Model	Basic model	Power Supply V/Ph/Hz	Fuse Capacity A	Minimum Circuit Current A	Maximum Overcurrent Protection A
GMV-W224WM/A-X	-	380-415V 3Ph 50/60Hz	20	16.1	20
GMV-W280WM/A-X	-	380-415V 3Ph 50/60Hz	20	19.7	20
GMV-W335WM/A-X	-	380-415V 3Ph 50/60Hz	32	26.8	32
GMV-W448WM/A-X	GMV-W224WM/A-X+ GMV-W224WM/A-X	380-415V 3Ph 50/60Hz	40	16.1+16.1	20+20
GMV-W504WM/A-X	GMV-W224WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	40	16.1+19.7	20+20
GMV-W560WM/A-X	GMV-W280WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	40	19.7+19.7	20+20
GMV-W615WM/A-X	GMV-W280WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	50	19.7+26.8	20+32
GMV-W670WM/A-X	GMV-W335WM/A-X+ GMV-W335WM/A-X+	380-415V 3Ph 50/60Hz	63	26.8+26.8	32+32
GMV-W728WM/A-X	GMV-W224WM/A-X+ GMV-W224WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	63	16.1+16.1+19.7	20+20+20
GMV-W784WM/A-X	GMV-W224WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	63	16.1+19.7+19.7	20+20+20
GMV-W840WM/A-X	GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	63	19.7+19.7+19.7	20+20+20
GMV-W895WM/A-X	GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	80	19.7+19.7+26.8	20+20+32
GMV-W950WM/A-X	GMV-W280WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	80	19.7+26.8+26.8	20+32+32
GMV-W1005WM/A-X	GMV-W335WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	80	26.8+26.8+26.8	32+32+32
GMV-W1064WM/A-X	GMV-W224WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	80	16.1+19.7 +19.7+19.7	20+20 +20+20
GMV-W1120WM/A-X	GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X	380-415V 3Ph 50/60Hz	80	19.7+19.7 +19.7+19.7	20+20 +20+20

Model	Basic model	Power Supply V/Ph/Hz	Fuse Capacity A	Minimum Circuit Current A	Maximum Overcurrent Protection A
GMV-W1175WM/A-X	GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	80	19.7+19.7 +19.7+26.8	20+20 +20+32
GMV-W1230WM/A-X	GMV-W280WM/A-X+ GMV-W280WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	100	19.7+19.7 +26.8+26.8	20+20 +32+32
GMV-W1285WM/A-X	GMV-W280WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	100	19.7+26.8 +26.8+26.8	20+32 +32+32
GMV-W1340WM/A-X	GMV-W335WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X+ GMV-W335WM/A-X	380-415V 3Ph 50/60Hz	125	26.8+26.8 +26.8+26.8	32+32 +32+32

Model	Basic model	Power Supply V/Ph/Hz	Fuse Capacity A	Minimum Circuit Current A	Maximum Overcurrent Protection A
GMV-W224WM/A-F	-	208-230V 3Ph 60Hz	50	32.3	50
GMV-W280WM/A-F	-	208-230V 3Ph 60Hz	60	34.2	60
GMV-W335WM/A-F	-	208-230V 3Ph 60Hz	80	45.1	80
GMV-W448WM/A-F	GMV-W224WM/A-F+ GMV-W224WM/A-F	208-230V 3Ph 60Hz	80	32.3+32.3	50+50
GMV-W504WM/A-F	GMV-W224WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	80	32.3+34.2	50+60
GMV-W560WM/A-F	GMV-W280WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	90	34.2+34.2	60+60
GMV-W615WM/A-F	GMV-W280WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	100	34.2+45.1	60+80
GMV-W670WM/A-F	GMV-W335WM/A-F+ GMV-W335WM/A-F+	208-230V 3Ph 60Hz	110	45.1+45.1	80+80
GMV-W728WM/A-F	GMV-W224WM/A-F+ GMV-W224WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	110	32.3+32.3+34.2	50+50+60
GMV-W784WM/A-F	GMV-W224WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	110	32.3+34.2+34.2	50+60+60
GMV-W840WM/A-F	GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	110	34.2+34.2+34.2	60+60+60

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Model	Basic model	Power Supply V/Ph/Hz	Fuse Capacity A	Minimum Circuit Current A	Maximum Overcurrent Protection A
GMV-W895WM/A-F	GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	125	34.2+34.2+45.1	60+60+80
GMV-W950WM/A-F	GMV-W280WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	150	34.2+45.1+45.1	60+80+80
GMV-W1005WM/A-F	GMV-W335WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	150	45.1+45.1+45.1	80+80+80
GMV-W1064WM/A-F	GMV-W224WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	150	32.3+34.2 +34.2+34.2	50+60 +60+60
GMV-W1120WM/A-F	GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F	208-230V 3Ph 60Hz	150	34.2+34.2 +34.2+34.2	60+60 +60+60
GMV-W1175WM/A-F	GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	150	34.2+34.2 +34.2+45.1	60+60 +60+80
GMV-W1230WM/A-F	GMV-W280WM/A-F+ GMV-W280WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	175	34.2+34.2 +45.1+45.1	60+60 +80+80
GMV-W1285WM/A-F	GMV-W280WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	175	34.2+45.1 +45.1+45.1	60+80 +80+80
GMV-W1340WM/A-F	GMV-W335WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F+ GMV-W335WM/A-F	208-230V 3Ph 60Hz	200	45.1+45.1 +45.1+45.1	80+80 +80+80































## NOTES:

- Specification of circuit breaker and power cord is selected on the basis of unit's maximum power (max. current).
- Specification of power cord is based on the working condition where ambient temperature is 40°C and multi-core cable with copper conductor(working temperature is 90 °C , e.g. power cable with YJV cross-linked copper, insulated PE and PVC sheath) is lying on the surface of slot. If working condition is different, please adjust the specification according to national standard.
- Copper-core cable should be used.
- The above sectional area is suitable for a maximum distance of 15m. If it's over 15m, sectional area must be expanded to prevent overload current from burning the wire or causing fire hazard.
- Specification of circuit breaker is based on the working condition where the ambient temperature of circuit breaker is 40°C . If working condition is different, please adjust the specification according to national standard.
- The circuit breaker should include magnetic trip function and thermal trip function so that system can be protected from short circuit and overload.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring

# 5 COMBINATION MODE

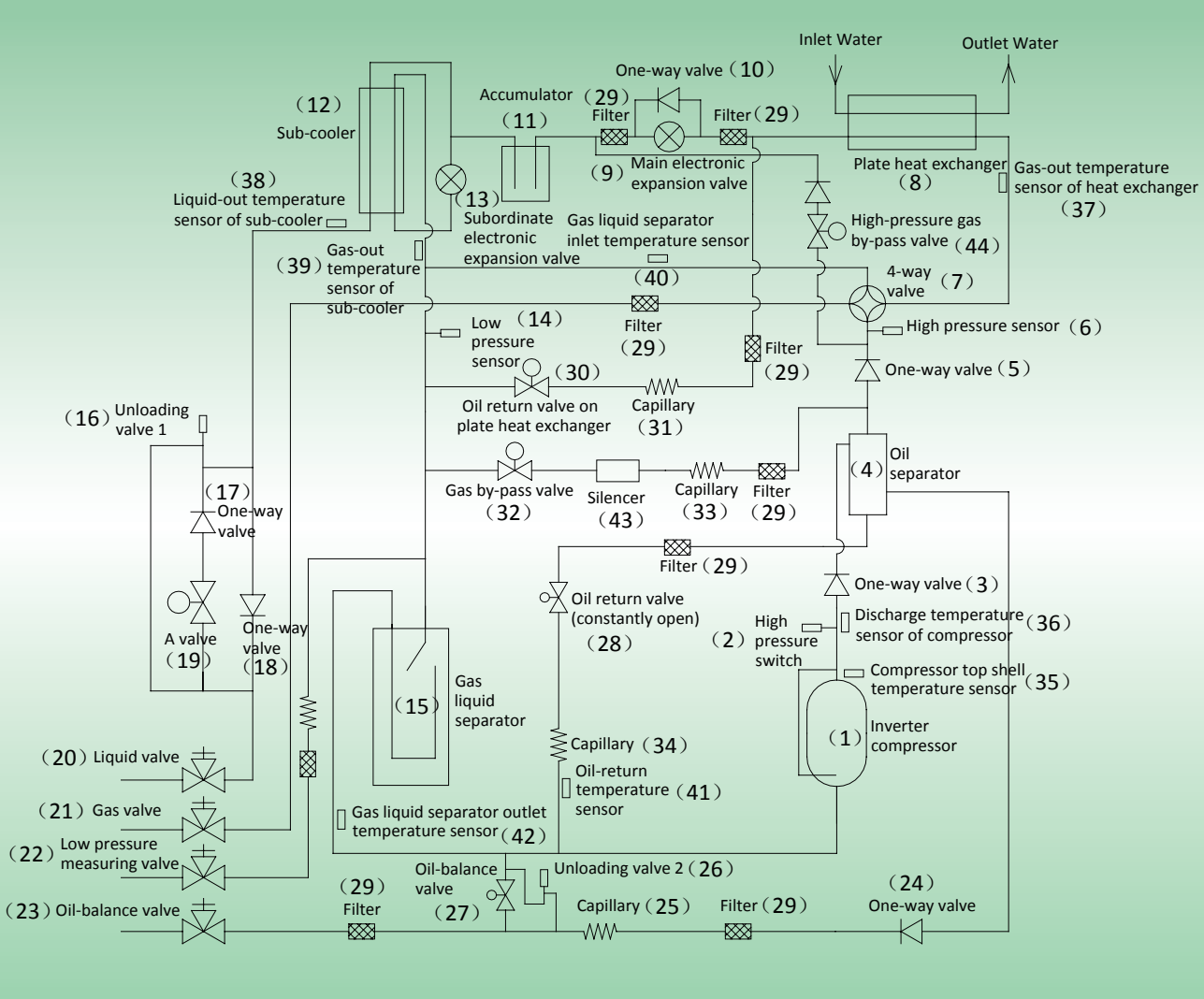
	Model	GMV-W224WM/A-X	GMV-W280WM/A-X	GMV-W335WM/A-X
Single module	GMV-W224WM/A-X			
	GMV-W280WM/A-X			
	GMV-W335WM/A-X			
Double module	GMV-W448WM/A-X			
	GMV-W504WM/A-X			
	GMV-W560WM/A-X			
	GMV-W615WM/A-X			
	GMV-W670WM/A-X			
Ternate module	GMV-W728WM/A-X			
	GMV-W784WM/A-X			
	GMV-W840WM/A-X			
	GMV-W895WM/A-X			
	GMV-W950WM/A-X			
	GMV-W1005WM/A-X			
Quaternate module	GMV-W1064WM/A-X			
	GMV-W1120WM/A-X			
	GMV-W1175WM/A-X			
	GMV-W1230WM/A-X			
	GMV-W1285WM/A-X			
	GMV-W1340WM/A-X			

# GMV WATER DC Inverter VRF Units Technical Sales Guide

	Model	GMV-W224WM/A-X	GMV-W280WM/A-X	GMV-W335WM/A-X
Single module	GMV-W224WM/A-F			
	GMV-W280WM/A-F			
	GMV-W335WM/A-F			
Double module	GMV-W448WM/A-F			
	GMV-W504WM/A-F			
	GMV-W560WM/A-F			
	GMV-W615WM/A-F			
	GMV-W670WM/A-F			
Ternate module	GMV-W728WM/A-F			
	GMV-W784WM/A-F			
	GMV-W840WM/A-F			
	GMV-W895WM/A-F			
	GMV-W950WM/A-F			
	GMV-W1005WM/A-F			
Quaternate module	GMV-W1064WM/A-F			
	GMV-W1120WM/A-F			
	GMV-W1175WM/A-F			
	GMV-W1230WM/A-F			
	GMV-W1285WM/A-F			
	GMV-W1340WM/A-F			

# 6 INTERNAL PIPING DESIGN OF THE UNITS

1. Piping diagrams of GMV-W224WM/A-X and GMV-W280WM/A-X and GMV-W335WM/A-X  
 GMV-W224WM/A-F and GMV-W280WM/A-F and GMV-W335WM/A-F:



**NOTE:**

The pressure balance valve is configured for the dual-compressor module only.



# 7 UNIT CAPACITY CORRECTION

## 7.1 Correction of Capacity Along with Ambient Temperature and Configuration Ratio

➤ Cooling Capacity Calculation Method

GMV-W224WM/A-X、GMV-W224WM/A-F

TC—Total capacity of outdoor unit; PI—Power input of outdoor unit

Combi nation	Inlet water temp. ℃	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0℃ WB		16.0℃ WB		18.0℃ WB		19.0℃ WB		20.0℃ WB		22.0℃ WB		24.0℃ WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		KW		KW		KW		KW		KW		KW		KW		
130%	20	4.8	18.44	3.36	20.55	3.43	22.59	3.50	23.68	3.53	24.32	3.57	26.07	3.63	28.13	3.70
		6.0	18.44	3.30	20.55	3.36	22.59	3.43	23.68	3.46	24.32	3.50	26.07	3.56	28.13	3.63
		7.2	18.44	3.23	20.55	3.29	22.59	3.36	23.68	3.39	24.32	3.43	26.07	3.48	28.13	3.56
		9.0	18.44	3.13	20.55	3.19	22.59	3.25	23.68	3.28	24.32	3.32	26.07	3.37	28.13	3.44
		11.0	18.44	3.02	20.55	3.08	22.59	3.14	23.68	3.16	24.32	3.20	26.07	3.25	28.13	3.32
	30	4.8	18.44	3.95	20.55	4.03	22.59	4.11	23.68	4.14	24.32	4.19	26.07	4.26	28.13	4.35
		6.0	18.44	3.87	20.55	3.95	22.59	4.03	23.68	4.06	24.32	4.11	26.07	4.18	28.13	4.26
		7.2	18.44	3.79	20.55	3.87	22.59	3.95	23.68	3.98	24.32	4.02	26.07	4.09	28.13	4.18
		9.0	18.44	3.67	20.55	3.75	22.59	3.82	23.68	3.85	24.32	3.90	26.07	3.96	28.13	4.05
		11.0	18.44	3.54	20.55	3.61	22.59	3.68	23.68	3.72	24.32	3.76	26.07	3.82	28.13	3.90
	40	4.8	18.44	4.76	20.55	4.86	22.59	4.95	23.68	5.00	24.32	5.05	26.07	5.14	28.13	5.25
		6.0	18.44	4.67	20.55	4.76	22.59	4.86	23.68	4.90	24.32	4.95	26.07	5.04	28.13	5.14
		7.2	18.44	4.57	20.55	4.67	22.59	4.76	23.68	4.80	24.32	4.85	26.07	4.93	28.13	5.04
		9.0	18.44	4.43	20.55	4.52	22.59	4.61	23.68	4.65	24.32	4.70	26.07	4.78	28.13	4.88
		11.0	18.44	4.27	20.55	4.36	22.59	4.44	23.68	4.48	24.32	4.53	26.07	4.61	28.13	4.70
	120%	20	4.8	18.06	3.34	20.13	3.41	22.13	3.48	23.20	3.51	23.83	3.55	25.54	3.61	27.56
6.0			18.06	3.28	20.13	3.34	22.13	3.41	23.20	3.44	23.83	3.47	25.54	3.53	27.56	3.61
7.2			18.06	3.21	20.13	3.27	22.13	3.34	23.20	3.36	23.83	3.40	25.54	3.46	27.56	3.53
9.0			18.06	3.11	20.13	3.17	22.13	3.23	23.20	3.26	23.83	3.30	25.54	3.35	27.56	3.42
11.0			18.06	3.00	20.13	3.06	22.13	3.12	23.20	3.14	23.83	3.18	25.54	3.23	27.56	3.30
30		4.8	18.06	3.93	20.13	4.01	22.13	4.08	23.20	4.12	23.83	4.16	25.54	4.24	27.56	4.32
		6.0	18.06	3.85	20.13	3.92	22.13	4.00	23.20	4.04	23.83	4.08	25.54	4.15	27.56	4.24
		7.2	18.06	3.77	20.13	3.84	22.13	3.92	23.20	3.95	23.83	4.00	25.54	4.07	27.56	4.15
		9.0	18.06	3.65	20.13	3.72	22.13	3.80	23.20	3.83	23.83	3.87	25.54	3.94	27.56	4.02
		11.0	18.06	3.52	20.13	3.59	22.13	3.66	23.20	3.69	23.83	3.73	25.54	3.80	27.56	3.88
40		4.8	18.06	4.73	20.13	4.83	22.13	4.92	23.20	4.96	23.83	5.02	25.54	5.11	27.56	5.21
		6.0	18.06	4.64	20.13	4.73	22.13	4.82	23.20	4.86	23.83	4.92	25.54	5.00	27.56	5.11
		7.2	18.06	4.54	20.13	4.63	22.13	4.72	23.20	4.76	23.83	4.82	25.54	4.90	27.56	5.00
		9.0	18.06	4.40	20.13	4.49	22.13	4.58	23.20	4.62	23.83	4.67	25.54	4.75	27.56	4.85
		11.0	18.06	4.24	20.13	4.33	22.13	4.41	23.20	4.45	23.83	4.50	25.54	4.58	27.56	4.67

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp															
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB			
			20.00		23.00		26.00		27.00		28.00		30.00		32.00			
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
110%	20	4.8	17.75	3.32	19.79	3.39	21.75	3.45	22.80	3.48	23.42	3.52	25.10	3.58	27.08	3.66		
		6.0	17.75	3.25	19.79	3.32	21.75	3.38	22.80	3.41	23.42	3.45	25.10	3.51	27.08	3.58		
		7.2	17.75	3.19	19.79	3.25	21.75	3.31	22.80	3.34	23.42	3.38	25.10	3.44	27.08	3.51		
		9.0	17.75	3.09	19.79	3.15	21.75	3.21	22.80	3.24	23.42	3.27	25.10	3.33	27.08	3.40		
		11.0	17.75	2.98	19.79	3.04	21.75	3.10	22.80	3.12	23.42	3.16	25.10	3.21	27.08	3.28		
	30	4.8	17.75	3.90	19.79	3.98	21.75	4.06	22.80	4.09	23.42	4.14	25.10	4.21	27.08	4.29		
		6.0	17.75	3.82	19.79	3.90	21.75	3.97	22.80	4.01	23.42	4.05	25.10	4.12	27.08	4.21		
		7.2	17.75	3.74	19.79	3.82	21.75	3.89	22.80	3.93	23.42	3.97	25.10	4.04	27.08	4.12		
		9.0	17.75	3.63	19.79	3.70	21.75	3.77	22.80	3.80	23.42	3.85	25.10	3.91	27.08	3.99		
		11.0	17.75	3.50	19.79	3.57	21.75	3.64	22.80	3.67	23.42	3.71	25.10	3.77	27.08	3.85		
	40	4.8	17.75	4.70	19.79	4.80	21.75	4.89	22.80	4.93	23.42	4.99	25.10	5.07	27.08	5.18		
		6.0	17.75	4.61	19.79	4.70	21.75	4.79	22.80	4.83	23.42	4.89	25.10	4.97	27.08	5.07		
		7.2	17.75	4.51	19.79	4.60	21.75	4.69	22.80	4.73	23.42	4.79	25.10	4.87	27.08	4.97		
		9.0	17.75	4.37	19.79	4.46	21.75	4.55	22.80	4.58	23.42	4.64	25.10	4.72	27.08	4.81		
		11.0	17.75	4.21	19.79	4.30	21.75	4.38	22.80	4.42	23.42	4.47	25.10	4.55	27.08	4.64		
	100%	20	4.8	17.44	3.30	19.44	3.36	21.37	3.43	22.40	3.46	23.01	3.50	24.66	3.56	26.60	3.63	
6.0			17.44	3.23	19.44	3.30	21.37	3.36	22.40	3.39	23.01	3.43	24.66	3.49	26.60	3.56		
7.2			17.44	3.17	19.44	3.23	21.37	3.29	22.40	3.32	23.01	3.36	24.66	3.41	26.60	3.49		
9.0			17.44	3.07	19.44	3.13	21.37	3.19	22.40	3.22	23.01	3.25	24.66	3.31	26.60	3.38		
11.0			17.44	2.96	19.44	3.02	21.37	3.07	22.40	3.10	23.01	3.14	24.66	3.19	26.60	3.25		
30		4.8	17.44	3.87	19.44	3.95	21.37	4.03	22.40	4.06	23.01	4.11	24.66	4.18	26.60	4.27		
		6.0	17.44	3.80	19.44	3.87	21.37	3.95	22.40	3.98	23.01	4.03	24.66	4.10	26.60	4.18		
		7.2	17.44	3.72	19.44	3.79	21.37	3.87	22.40	3.90	23.01	3.94	24.66	4.01	26.60	4.09		
		9.0	17.44	3.60	19.44	3.67	21.37	3.75	22.40	3.78	23.01	3.82	24.66	3.89	26.60	3.97		
		11.0	17.44	3.47	19.44	3.54	21.37	3.61	22.40	3.64	23.01	3.68	24.66	3.75	26.60	3.82		
40		4.8	17.44	4.67	19.44	4.76	21.37	4.86	22.40	4.90	23.01	4.95	24.66	5.04	26.60	5.14		
		6.0	17.44	4.58	19.44	4.67	21.37	4.76	22.40	4.80	23.01	4.85	24.66	4.94	26.60	5.04		
		7.2	17.44	4.48	19.44	4.57	21.37	4.66	22.40	4.70	23.01	4.76	24.66	4.84	26.60	4.94		
		9.0	17.44	4.34	19.44	4.43	21.37	4.52	22.40	4.55	23.01	4.61	24.66	4.68	26.60	4.78		
		11.0	17.44	4.19	19.44	4.27	21.37	4.35	22.40	4.39	23.01	4.44	24.66	4.52	26.60	4.61		
90%		20	4.8	15.70	2.82	17.49	2.87	19.23	2.93	20.16	2.95	20.71	2.99	22.19	3.04	23.94	3.10	
	6.0		15.70	2.76	17.49	2.82	19.23	2.87	20.16	2.89	20.71	2.93	22.19	2.98	23.94	3.04		
	7.2		15.70	2.70	17.49	2.76	19.23	2.81	20.16	2.84	20.71	2.87	22.19	2.92	23.94	2.98		
	9.0		15.70	2.62	17.49	2.67	19.23	2.72	20.16	2.75	20.71	2.78	22.19	2.83	23.94	2.88		
	11.0		15.70	2.52	17.49	2.58	19.23	2.63	20.16	2.65	20.71	2.68	22.19	2.72	23.94	2.78		
	30	4.8	15.70	3.31	17.49	3.37	19.23	3.44	20.16	3.47	20.71	3.51	22.19	3.57	23.94	3.64		
		6.0	15.70	3.24	17.49	3.31	19.23	3.37	20.16	3.40	20.71	3.44	22.19	3.50	23.94	3.57		
		7.2	15.70	3.18	17.49	3.24	19.23	3.30	20.16	3.33	20.71	3.37	22.19	3.43	23.94	3.50		
		9.0	15.70	3.08	17.49	3.14	19.23	3.20	20.16	3.23	20.71	3.26	22.19	3.32	23.94	3.39		
		11.0	15.70	2.97	17.49	3.03	19.23	3.08	20.16	3.11	20.71	3.15	22.19	3.20	23.94	3.27		
	40	4.8	15.70	3.99	17.49	4.07	19.23	4.15	20.16	4.18	20.71	4.23	22.19	4.30	23.94	4.39		
		6.0	15.70	3.91	17.49	3.99	19.23	4.06	20.16	4.10	20.71	4.15	22.19	4.22	23.94	4.30		
		7.2	15.70	3.83	17.49	3.91	19.23	3.98	20.16	4.02	20.71	4.06	22.19	4.13	23.94	4.21		
		9.0	15.70	3.71	17.49	3.78	19.23	3.86	20.16	3.89	20.71	3.93	22.19	4.00	23.94	4.08		
		11.0	15.70	3.58	17.49	3.65	19.23	3.72	20.16	3.75	20.71	3.79	22.19	3.86	23.94	3.94		

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	
80%	20	4.8	14.20	2.38	15.83	2.43	17.40	2.47	18.24	2.49	18.73	2.52	20.08	2.56	21.66	2.62
		6.0	14.20	2.33	15.83	2.38	17.40	2.42	18.24	2.44	18.73	2.47	20.08	2.51	21.66	2.57
		7.2	14.20	2.28	15.83	2.33	17.40	2.37	18.24	2.39	18.73	2.42	20.08	2.46	21.66	2.51
		9.0	14.20	2.21	15.83	2.26	17.40	2.30	18.24	2.32	18.73	2.35	20.08	2.39	21.66	2.43
		11.0	14.20	2.13	15.83	2.17	17.40	2.22	18.24	2.24	18.73	2.26	20.08	2.30	21.66	2.35
	30	4.8	14.20	2.79	15.83	2.85	17.40	2.90	18.24	2.93	18.73	2.96	20.08	3.01	21.66	3.08
		6.0	14.20	2.74	15.83	2.79	17.40	2.85	18.24	2.87	18.73	2.90	20.08	2.95	21.66	3.01
		7.2	14.20	2.68	15.83	2.74	17.40	2.79	18.24	2.81	18.73	2.84	20.08	2.89	21.66	2.95
		9.0	14.20	2.60	15.83	2.65	17.40	2.70	18.24	2.72	18.73	2.76	20.08	2.80	21.66	2.86
		11.0	14.20	2.50	15.83	2.55	17.40	2.60	18.24	2.63	18.73	2.66	20.08	2.70	21.66	2.76
	40	4.8	14.20	3.37	15.83	3.43	17.40	3.50	18.24	3.53	18.73	3.57	20.08	3.63	21.66	3.71
		6.0	14.20	3.30	15.83	3.37	17.40	3.43	18.24	3.46	18.73	3.50	20.08	3.56	21.66	3.63
		7.2	14.20	3.23	15.83	3.30	17.40	3.36	18.24	3.39	18.73	3.43	20.08	3.49	21.66	3.56
		9.0	14.20	3.13	15.83	3.19	17.40	3.26	18.24	3.28	18.73	3.32	20.08	3.38	21.66	3.45
		11.0	14.20	3.02	15.83	3.08	17.40	3.14	18.24	3.17	18.73	3.20	20.08	3.26	21.66	3.32
	70%	20	4.8	12.21	1.97	13.61	2.01	14.96	2.05	15.68	2.07	16.10	2.09	17.26	2.13	18.62
6.0			12.21	1.93	13.61	1.97	14.96	2.01	15.68	2.03	16.10	2.05	17.26	2.09	18.62	2.13
7.2			12.21	1.89	13.61	1.93	14.96	1.97	15.68	1.99	16.10	2.01	17.26	2.04	18.62	2.09
9.0			12.21	1.83	13.61	1.87	14.96	1.91	15.68	1.92	16.10	1.95	17.26	1.98	18.62	2.02
11.0			12.21	1.77	13.61	1.80	14.96	1.84	15.68	1.86	16.10	1.88	17.26	1.91	18.62	1.95
30		4.8	12.21	2.32	13.61	2.36	14.96	2.41	15.68	2.43	16.10	2.46	17.26	2.50	18.62	2.55
		6.0	12.21	2.27	13.61	2.32	14.96	2.36	15.68	2.38	16.10	2.41	17.26	2.45	18.62	2.50
		7.2	12.21	2.23	13.61	2.27	14.96	2.31	15.68	2.33	16.10	2.36	17.26	2.40	18.62	2.45
		9.0	12.21	2.16	13.61	2.20	14.96	2.24	15.68	2.26	16.10	2.29	17.26	2.33	18.62	2.37
		11.0	12.21	2.08	13.61	2.12	14.96	2.16	15.68	2.18	16.10	2.20	17.26	2.24	18.62	2.29
40		4.8	12.21	2.79	13.61	2.85	14.96	2.91	15.68	2.93	16.10	2.96	17.26	3.01	18.62	3.08
		6.0	12.21	2.74	13.61	2.79	14.96	2.85	15.68	2.87	16.10	2.91	17.26	2.95	18.62	3.02
		7.2	12.21	2.68	13.61	2.74	14.96	2.79	15.68	2.81	16.10	2.85	17.26	2.89	18.62	2.95
		9.0	12.21	2.60	13.61	2.65	14.96	2.70	15.68	2.73	16.10	2.76	17.26	2.80	18.62	2.86
		11.0	12.21	2.51	13.61	2.56	14.96	2.61	15.68	2.63	16.10	2.66	17.26	2.70	18.62	2.76
60%		20	4.8	10.46	1.61	11.66	1.64	12.82	1.67	13.44	1.69	13.80	1.71	14.80	1.74	15.96
	6.0		10.46	1.58	11.66	1.61	12.82	1.64	13.44	1.65	13.80	1.67	14.80	1.70	15.96	1.74
	7.2		10.46	1.54	11.66	1.58	12.82	1.61	13.44	1.62	13.80	1.64	14.80	1.67	15.96	1.70
	9.0		10.46	1.50	11.66	1.53	12.82	1.56	13.44	1.57	13.80	1.59	14.80	1.61	15.96	1.65
	11.0		10.46	1.44	11.66	1.47	12.82	1.50	13.44	1.51	13.80	1.53	14.80	1.56	15.96	1.59
	30	4.8	10.46	1.89	11.66	1.93	12.82	1.97	13.44	1.98	13.80	2.00	14.80	2.04	15.96	2.08
		6.0	10.46	1.85	11.66	1.89	12.82	1.93	13.44	1.94	13.80	1.96	14.80	2.00	15.96	2.04
		7.2	10.46	1.81	11.66	1.85	12.82	1.89	13.44	1.90	13.80	1.92	14.80	1.96	15.96	2.00
		9.0	10.46	1.76	11.66	1.79	12.82	1.83	13.44	1.84	13.80	1.86	14.80	1.90	15.96	1.93
		11.0	10.46	1.69	11.66	1.73	12.82	1.76	13.44	1.78	13.80	1.80	14.80	1.83	15.96	1.87
	40	4.8	10.46	2.28	11.66	2.32	12.82	2.37	13.44	2.39	13.80	2.42	14.80	2.46	15.96	2.51
		6.0	10.46	2.23	11.66	2.28	12.82	2.32	13.44	2.34	13.80	2.37	14.80	2.41	15.96	2.46
		7.2	10.46	2.19	11.66	2.23	12.82	2.27	13.44	2.29	13.80	2.32	14.80	2.36	15.96	2.41
		9.0	10.46	2.12	11.66	2.16	12.82	2.20	13.44	2.22	13.80	2.25	14.80	2.29	15.96	2.33
		11.0	10.46	2.04	11.66	2.08	12.82	2.12	13.44	2.14	13.80	2.17	14.80	2.20	15.96	2.25

Combination	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
KW		KW		KW		KW		KW		KW		KW		KW		
50%	20	4.8	8.72	1.28	9.72	1.31	10.68	1.33	11.20	1.34	11.50	1.36	12.33	1.38	13.30	1.41
		6.0	8.72	1.25	9.72	1.28	10.68	1.30	11.20	1.32	11.50	1.33	12.33	1.35	13.30	1.38
		7.2	8.72	1.23	9.72	1.25	10.68	1.28	11.20	1.29	11.50	1.30	12.33	1.33	13.30	1.35
		9.0	8.72	1.19	9.72	1.21	10.68	1.24	11.20	1.25	11.50	1.26	12.33	1.28	13.30	1.31
		11.0	8.72	1.15	9.72	1.17	10.68	1.19	11.20	1.20	11.50	1.22	12.33	1.24	13.30	1.26
	30	4.8	8.72	1.50	9.72	1.53	10.68	1.56	11.20	1.58	11.50	1.60	12.33	1.62	13.30	1.66
		6.0	8.72	1.47	9.72	1.50	10.68	1.53	11.20	1.55	11.50	1.56	12.33	1.59	13.30	1.62
		7.2	8.72	1.44	9.72	1.47	10.68	1.50	11.20	1.51	11.50	1.53	12.33	1.56	13.30	1.59
		9.0	8.72	1.40	9.72	1.43	10.68	1.45	11.20	1.47	11.50	1.48	12.33	1.51	13.30	1.54
		11.0	8.72	1.35	9.72	1.38	10.68	1.40	11.20	1.41	11.50	1.43	12.33	1.45	13.30	1.48
	40	4.8	8.72	1.81	9.72	1.85	10.68	1.89	11.20	1.90	11.50	1.92	12.33	1.96	13.30	2.00
		6.0	8.72	1.78	9.72	1.81	10.68	1.85	11.20	1.86	11.50	1.88	12.33	1.92	13.30	1.96
7.2		8.72	1.74	9.72	1.78	10.68	1.81	11.20	1.82	11.50	1.85	12.33	1.88	13.30	1.92	
9.0		8.72	1.69	9.72	1.72	10.68	1.75	11.20	1.77	11.50	1.79	12.33	1.82	13.30	1.86	
11.0	8.72	1.62	9.72	1.66	10.68	1.69	11.20	1.70	11.50	1.72	12.33	1.75	13.30	1.79		

GMV-W280WM/A-X、GMV-W280WM/A-F

TC—Total capacity of outdoor unit; PI—Power input of outdoor unit

Combination	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
KW		KW		KW		KW		KW		KW		KW		KW		
130%	20	4.8	23.05	4.92	25.69	5.02	28.24	5.11	29.60	5.16	30.40	5.22	32.59	5.30	35.16	5.41
		6.0	23.05	4.82	25.69	4.92	28.24	5.01	29.60	5.05	30.40	5.11	32.59	5.20	35.16	5.31
		7.2	23.05	4.72	25.69	4.82	28.24	4.91	29.60	4.95	30.40	5.01	32.59	5.09	35.16	5.20
		9.0	23.05	4.57	25.69	4.66	28.24	4.76	29.60	4.80	30.40	4.85	32.59	4.93	35.16	5.03
		11.0	23.05	4.41	25.69	4.50	28.24	4.58	29.60	4.62	30.40	4.68	32.59	4.76	35.16	4.85
	30	4.8	23.05	5.78	25.69	5.89	28.24	6.01	29.60	6.06	30.40	6.13	32.59	6.23	35.16	6.36
		6.0	23.05	5.66	25.69	5.77	28.24	5.89	29.60	5.94	30.40	6.00	32.59	6.11	35.16	6.23
		7.2	23.05	5.54	25.69	5.66	28.24	5.77	29.60	5.82	30.40	5.88	32.59	5.98	35.16	6.10
		9.0	23.05	5.37	25.69	5.48	28.24	5.59	29.60	5.63	30.40	5.70	32.59	5.79	35.16	5.91
		11.0	23.05	5.18	25.69	5.28	28.24	5.39	29.60	5.43	30.40	5.49	32.59	5.59	35.16	5.70
	40	4.8	23.05	6.96	25.69	7.10	28.24	7.24	29.60	7.30	30.40	7.39	32.59	7.51	35.16	7.67
		6.0	23.05	6.82	25.69	6.96	28.24	7.10	29.60	7.16	30.40	7.24	32.59	7.36	35.16	7.51
7.2		23.05	6.68	25.69	6.82	28.24	6.95	29.60	7.01	30.40	7.09	32.59	7.21	35.16	7.36	
9.0		23.05	6.47	25.69	6.61	28.24	6.73	29.60	6.79	30.40	6.87	32.59	6.98	35.16	7.13	
11.0		23.05	6.24	25.69	6.37	28.24	6.49	29.60	6.55	30.40	6.62	32.59	6.73	35.16	6.87	
120%	20	4.8	22.58	4.88	25.17	4.98	27.67	5.08	29.00	5.12	29.78	5.18	31.93	5.27	34.44	5.38
		6.0	22.58	4.79	25.17	4.88	27.67	4.98	29.00	5.02	29.78	5.08	31.93	5.16	34.44	5.27
		7.2	22.58	4.69	25.17	4.78	27.67	4.88	29.00	4.92	29.78	4.97	31.93	5.06	34.44	5.16
		9.0	22.58	4.54	25.17	4.63	27.67	4.72	29.00	4.76	29.78	4.82	31.93	4.90	34.44	5.00
		11.0	22.58	4.38	25.17	4.47	27.67	4.55	29.00	4.59	29.78	4.65	31.93	4.72	34.44	4.82
	30	4.8	22.58	5.74	25.17	5.85	27.67	5.97	29.00	6.02	29.78	6.09	31.93	6.19	34.44	6.32
		6.0	22.58	5.62	25.17	5.74	27.67	5.85	29.00	5.90	29.78	5.97	31.93	6.07	34.44	6.19
		7.2	22.58	5.51	25.17	5.62	27.67	5.73	29.00	5.78	29.78	5.84	31.93	5.94	34.44	6.06
		9.0	22.58	5.34	25.17	5.44	27.67	5.55	29.00	5.60	29.78	5.66	31.93	5.76	34.44	5.87
		11.0	22.58	5.14	25.17	5.25	27.67	5.35	29.00	5.39	29.78	5.46	31.93	5.55	34.44	5.66
	40	4.8	22.58	6.92	25.17	7.06	27.67	7.19	29.00	7.25	29.78	7.34	31.93	7.46	34.44	7.62
		6.0	22.58	6.78	25.17	6.92	27.67	7.05	29.00	7.11	29.78	7.19	31.93	7.31	34.44	7.46
7.2		22.58	6.64	25.17	6.77	27.67	6.91	29.00	6.96	29.78	7.04	31.93	7.16	34.44	7.31	
9.0		22.58	6.43	25.17	6.56	27.67	6.69	29.00	6.75	29.78	6.82	31.93	6.94	34.44	7.08	
11.0		22.58	6.20	25.17	6.33	27.67	6.45	29.00	6.50	29.78	6.58	31.93	6.69	34.44	6.83	

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp															
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB			
			20.00		23.00		26.00		27.00		28.00		30.00		32.00			
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
110%	20	4.8	22.19	4.85	24.73	4.95	27.19	5.05	28.50	5.09	29.27	5.15	31.38	5.23	33.85	5.34		
		6.0	22.19	4.76	24.73	4.85	27.19	4.95	28.50	4.99	29.27	5.04	31.38	5.13	33.85	5.24		
		7.2	22.19	4.66	24.73	4.75	27.19	4.84	28.50	4.89	29.27	4.94	31.38	5.02	33.85	5.13		
		9.0	22.19	4.51	24.73	4.60	27.19	4.69	28.50	4.73	29.27	4.79	31.38	4.87	33.85	4.97		
		11.0	22.19	4.35	24.73	4.44	27.19	4.52	28.50	4.56	29.27	4.61	31.38	4.69	33.85	4.79		
	30	4.8	22.19	5.70	24.73	5.81	27.19	5.93	28.50	5.98	29.27	6.05	31.38	6.15	33.85	6.28		
		6.0	22.19	5.59	24.73	5.70	27.19	5.81	28.50	5.86	29.27	5.93	31.38	6.03	33.85	6.15		
		7.2	22.19	5.47	24.73	5.58	27.19	5.69	28.50	5.74	29.27	5.80	31.38	5.90	33.85	6.02		
		9.0	22.19	5.30	24.73	5.41	27.19	5.51	28.50	5.56	29.27	5.62	31.38	5.72	33.85	5.84		
		11.0	22.19	5.11	24.73	5.21	27.19	5.31	28.50	5.36	29.27	5.42	31.38	5.51	33.85	5.63		
	40	4.8	22.19	6.87	24.73	7.01	27.19	7.15	28.50	7.21	29.27	7.29	31.38	7.41	33.85	7.57		
		6.0	22.19	6.73	24.73	6.87	27.19	7.00	28.50	7.06	29.27	7.14	31.38	7.26	33.85	7.41		
		7.2	22.19	6.60	24.73	6.73	27.19	6.86	28.50	6.92	29.27	7.00	31.38	7.12	33.85	7.26		
		9.0	22.19	6.39	24.73	6.52	27.19	6.64	28.50	6.70	29.27	6.78	31.38	6.89	33.85	7.03		
		11.0	22.19	6.16	24.73	6.28	27.19	6.41	28.50	6.46	29.27	6.53	31.38	6.65	33.85	6.78		
100%	20	4.8	21.80	4.82	24.30	4.92	26.71	5.01	28.00	5.05	28.76	5.11	30.83	5.20	33.26	5.31		
		6.0	21.80	4.72	24.30	4.82	26.71	4.91	28.00	4.95	28.76	5.01	30.83	5.10	33.26	5.20		
		7.2	21.80	4.63	24.30	4.72	26.71	4.81	28.00	4.85	28.76	4.91	30.83	4.99	33.26	5.09		
		9.0	21.80	4.48	24.30	4.57	26.71	4.66	28.00	4.70	28.76	4.75	30.83	4.83	33.26	4.93		
		11.0	21.80	4.32	24.30	4.41	26.71	4.49	28.00	4.53	28.76	4.58	30.83	4.66	33.26	4.76		
	30	4.8	21.80	5.66	24.30	5.78	26.71	5.89	28.00	5.94	28.76	6.01	30.83	6.11	33.26	6.23		
		6.0	21.80	5.55	24.30	5.66	26.71	5.77	28.00	5.82	28.76	5.89	30.83	5.99	33.26	6.11		
		7.2	21.80	5.43	24.30	5.54	26.71	5.65	28.00	5.70	28.76	5.77	30.83	5.86	33.26	5.98		
		9.0	21.80	5.26	24.30	5.37	26.71	5.48	28.00	5.52	28.76	5.58	30.83	5.68	33.26	5.80		
		11.0	21.80	5.08	24.30	5.18	26.71	5.28	28.00	5.32	28.76	5.38	30.83	5.48	33.26	5.59		
	40	4.8	21.80	6.83	24.30	6.96	26.71	7.10	28.00	7.16	28.76	7.24	30.83	7.36	33.26	7.51		
		6.0	21.80	6.69	24.30	6.82	26.71	6.96	28.00	7.01	28.76	7.10	30.83	7.22	33.26	7.36		
		7.2	21.80	6.55	24.30	6.68	26.71	6.81	28.00	6.87	28.76	6.95	30.83	7.07	33.26	7.21		
		9.0	21.80	6.35	24.30	6.47	26.71	6.60	28.00	6.66	28.76	6.73	30.83	6.85	33.26	6.99		
		11.0	21.80	6.12	24.30	6.24	26.71	6.36	28.00	6.42	28.76	6.49	30.83	6.60	33.26	6.74		
90%	20	4.8	19.62	4.12	21.87	4.20	24.04	4.28	25.20	4.32	25.88	4.37	27.74	4.44	29.93	4.53		
		6.0	19.62	4.03	21.87	4.11	24.04	4.19	25.20	4.23	25.88	4.28	27.74	4.35	29.93	4.44		
		7.2	19.62	3.95	21.87	4.03	24.04	4.11	25.20	4.14	25.88	4.19	27.74	4.26	29.93	4.35		
		9.0	19.62	3.83	21.87	3.90	24.04	3.98	25.20	4.01	25.88	4.06	27.74	4.13	29.93	4.21		
		11.0	19.62	3.69	21.87	3.76	24.04	3.84	25.20	3.87	25.88	3.91	27.74	3.98	29.93	4.06		
	30	4.8	19.62	4.84	21.87	4.93	24.04	5.03	25.20	5.07	25.88	5.13	27.74	5.22	29.93	5.32		
		6.0	19.62	4.74	21.87	4.83	24.04	4.93	25.20	4.97	25.88	5.03	27.74	5.11	29.93	5.22		
		7.2	19.62	4.64	21.87	4.73	24.04	4.83	25.20	4.87	25.88	4.92	27.74	5.01	29.93	5.11		
		9.0	19.62	4.50	21.87	4.59	24.04	4.68	25.20	4.72	25.88	4.77	27.74	4.85	29.93	4.95		
		11.0	19.62	4.33	21.87	4.42	24.04	4.51	25.20	4.55	25.88	4.60	27.74	4.68	29.93	4.77		
	40	4.8	19.62	5.83	21.87	5.95	24.04	6.06	25.20	6.11	25.88	6.18	27.74	6.29	29.93	6.42		
		6.0	19.62	5.71	21.87	5.83	24.04	5.94	25.20	5.99	25.88	6.06	27.74	6.16	29.93	6.29		
		7.2	19.62	5.60	21.87	5.71	24.04	5.82	25.20	5.87	25.88	5.94	27.74	6.04	29.93	6.16		
		9.0	19.62	5.42	21.87	5.53	24.04	5.64	25.20	5.68	25.88	5.75	27.74	5.85	29.93	5.97		
		11.0	19.62	5.23	21.87	5.33	24.04	5.43	25.20	5.48	25.88	5.54	27.74	5.64	29.93	5.75		

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	
80%	20	4.8	17.75	3.48	19.79	3.55	21.75	3.61	22.80	3.64	23.42	3.69	25.10	3.75	27.08	3.83
		6.0	17.75	3.41	19.79	3.47	21.75	3.54	22.80	3.57	23.42	3.61	25.10	3.67	27.08	3.75
		7.2	17.75	3.34	19.79	3.40	21.75	3.47	22.80	3.50	23.42	3.54	25.10	3.60	27.08	3.67
		9.0	17.75	3.23	19.79	3.30	21.75	3.36	22.80	3.39	23.42	3.43	25.10	3.49	27.08	3.56
		11.0	17.75	3.12	19.79	3.18	21.75	3.24	22.80	3.27	23.42	3.30	25.10	3.36	27.08	3.43
	30	4.8	17.75	4.08	19.79	4.16	21.75	4.25	22.80	4.28	23.42	4.33	25.10	4.40	27.08	4.49
		6.0	17.75	4.00	19.79	4.08	21.75	4.16	22.80	4.20	23.42	4.24	25.10	4.32	27.08	4.40
		7.2	17.75	3.92	19.79	4.00	21.75	4.08	22.80	4.11	23.42	4.16	25.10	4.23	27.08	4.31
		9.0	17.75	3.80	19.79	3.87	21.75	3.95	22.80	3.98	23.42	4.03	25.10	4.09	27.08	4.18
		11.0	17.75	3.66	19.79	3.73	21.75	3.81	22.80	3.84	23.42	3.88	25.10	3.95	27.08	4.03
	40	4.8	17.75	4.92	19.79	5.02	21.75	5.12	22.80	5.16	23.42	5.22	25.10	5.31	27.08	5.42
		6.0	17.75	4.82	19.79	4.92	21.75	5.02	22.80	5.06	23.42	5.12	25.10	5.20	27.08	5.31
		7.2	17.75	4.72	19.79	4.82	21.75	4.91	22.80	4.95	23.42	5.01	25.10	5.10	27.08	5.20
		9.0	17.75	4.58	19.79	4.67	21.75	4.76	22.80	4.80	23.42	4.85	25.10	4.94	27.08	5.04
		11.0	17.75	4.41	19.79	4.50	21.75	4.59	22.80	4.63	23.42	4.68	25.10	4.76	27.08	4.86
	70%	20	4.8	15.26	2.88	17.01	2.94	18.70	3.00	19.60	3.02	20.13	3.06	21.58	3.11	23.28
6.0			15.26	2.83	17.01	2.88	18.70	2.94	19.60	2.96	20.13	3.00	21.58	3.05	23.28	3.11
7.2			15.26	2.77	17.01	2.82	18.70	2.88	19.60	2.90	20.13	2.94	21.58	2.99	23.28	3.05
9.0			15.26	2.68	17.01	2.74	18.70	2.79	19.60	2.81	20.13	2.84	21.58	2.89	23.28	2.95
11.0			15.26	2.59	17.01	2.64	18.70	2.69	19.60	2.71	20.13	2.74	21.58	2.79	23.28	2.85
30		4.8	15.26	3.39	17.01	3.46	18.70	3.52	19.60	3.55	20.13	3.59	21.58	3.65	23.28	3.73
		6.0	15.26	3.32	17.01	3.39	18.70	3.45	19.60	3.48	20.13	3.52	21.58	3.58	23.28	3.66
		7.2	15.26	3.25	17.01	3.32	18.70	3.38	19.60	3.41	20.13	3.45	21.58	3.51	23.28	3.58
		9.0	15.26	3.15	17.01	3.21	18.70	3.28	19.60	3.30	20.13	3.34	21.58	3.40	23.28	3.47
		11.0	15.26	3.04	17.01	3.10	18.70	3.16	19.60	3.19	20.13	3.22	21.58	3.28	23.28	3.34
40		4.8	15.26	4.08	17.01	4.17	18.70	4.25	19.60	4.28	20.13	4.33	21.58	4.41	23.28	4.50
		6.0	15.26	4.00	17.01	4.08	18.70	4.16	19.60	4.20	20.13	4.25	21.58	4.32	23.28	4.41
		7.2	15.26	3.92	17.01	4.00	18.70	4.08	19.60	4.11	20.13	4.16	21.58	4.23	23.28	4.32
		9.0	15.26	3.80	17.01	3.87	18.70	3.95	19.60	3.98	20.13	4.03	21.58	4.10	23.28	4.18
		11.0	15.26	3.66	17.01	3.74	18.70	3.81	19.60	3.84	20.13	3.88	21.58	3.95	23.28	4.03
60%		20	4.8	13.08	2.35	14.58	2.40	16.03	2.45	16.80	2.47	17.25	2.49	18.50	2.54	19.95
	6.0		13.08	2.30	14.58	2.35	16.03	2.40	16.80	2.42	17.25	2.44	18.50	2.49	19.95	2.54
	7.2		13.08	2.26	14.58	2.30	16.03	2.35	16.80	2.37	17.25	2.39	18.50	2.43	19.95	2.49
	9.0		13.08	2.19	14.58	2.23	16.03	2.27	16.80	2.29	17.25	2.32	18.50	2.36	19.95	2.41
	11.0		13.08	2.11	14.58	2.15	16.03	2.19	16.80	2.21	17.25	2.24	18.50	2.27	19.95	2.32
	30	4.8	13.08	2.76	14.58	2.82	16.03	2.87	16.80	2.90	17.25	2.93	18.50	2.98	19.95	3.04
		6.0	13.08	2.71	14.58	2.76	16.03	2.82	16.80	2.84	17.25	2.87	18.50	2.92	19.95	2.98
		7.2	13.08	2.65	14.58	2.70	16.03	2.76	16.80	2.78	17.25	2.81	18.50	2.86	19.95	2.92
		9.0	13.08	2.57	14.58	2.62	16.03	2.67	16.80	2.69	17.25	2.72	18.50	2.77	19.95	2.83
		11.0	13.08	2.48	14.58	2.53	16.03	2.58	16.80	2.60	17.25	2.63	18.50	2.67	19.95	2.73
	40	4.8	13.08	3.33	14.58	3.40	16.03	3.46	16.80	3.49	17.25	3.53	18.50	3.59	19.95	3.67
		6.0	13.08	3.26	14.58	3.33	16.03	3.39	16.80	3.42	17.25	3.46	18.50	3.52	19.95	3.59
		7.2	13.08	3.20	14.58	3.26	16.03	3.32	16.80	3.35	17.25	3.39	18.50	3.45	19.95	3.52
		9.0	13.08	3.10	14.58	3.16	16.03	3.22	16.80	3.25	17.25	3.28	18.50	3.34	19.95	3.41
		11.0	13.08	2.99	14.58	3.05	16.03	3.10	16.80	3.13	17.25	3.17	18.50	3.22	19.95	3.29



# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combination	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
KW		KW		KW		KW		KW		KW		KW		KW		
50%	20	4.8	10.90	1.87	12.15	1.91	13.36	1.95	14.00	1.96	14.38	1.98	15.41	2.02	16.63	2.06
		6.0	10.90	1.83	12.15	1.87	13.36	1.91	14.00	1.92	14.38	1.94	15.41	1.98	16.63	2.02
		7.2	10.90	1.80	12.15	1.83	13.36	1.87	14.00	1.88	14.38	1.91	15.41	1.94	16.63	1.98
		9.0	10.90	1.74	12.15	1.77	13.36	1.81	14.00	1.82	14.38	1.85	15.41	1.88	16.63	1.92
		11.0	10.90	1.68	12.15	1.71	13.36	1.74	14.00	1.76	14.38	1.78	15.41	1.81	16.63	1.85
	30	4.8	10.90	2.20	12.15	2.24	13.36	2.29	14.00	2.30	14.38	2.33	15.41	2.37	16.63	2.42
		6.0	10.90	2.15	12.15	2.20	13.36	2.24	14.00	2.26	14.38	2.28	15.41	2.32	16.63	2.37
		7.2	10.90	2.11	12.15	2.15	13.36	2.19	14.00	2.21	14.38	2.24	15.41	2.28	16.63	2.32
		9.0	10.90	2.04	12.15	2.08	13.36	2.13	14.00	2.14	14.38	2.17	15.41	2.20	16.63	2.25
		11.0	10.90	1.97	12.15	2.01	13.36	2.05	14.00	2.07	14.38	2.09	15.41	2.13	16.63	2.17
	40	4.8	10.90	2.65	12.15	2.70	13.36	2.76	14.00	2.78	14.38	2.81	15.41	2.86	16.63	2.92
		6.0	10.90	2.60	12.15	2.65	13.36	2.70	14.00	2.72	14.38	2.75	15.41	2.80	16.63	2.86
		7.2	10.90	2.54	12.15	2.59	13.36	2.64	14.00	2.67	14.38	2.70	15.41	2.74	16.63	2.80
		9.0	10.90	2.46	12.15	2.51	13.36	2.56	14.00	2.58	14.38	2.61	15.41	2.66	16.63	2.71
		11.0	10.90	2.37	12.15	2.42	13.36	2.47	14.00	2.49	14.38	2.52	15.41	2.56	16.63	2.61

GMV-W335WM/A-X、GMV-W335WM/A-F

TC—Total capacity of outdoor unit; PI—Power input of outdoor unit

Combination	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
KW		KW		KW		KW		KW		KW		KW		KW		
130%	20	4.8	27.57	6.82	30.73	6.95	33.79	7.09	35.41	7.15	36.37	7.23	38.99	7.35	42.06	7.50
		6.0	27.57	6.68	30.73	6.81	33.79	6.95	35.41	7.00	36.37	7.08	38.99	7.20	42.06	7.35
		7.2	27.57	6.54	30.73	6.67	33.79	6.80	35.41	6.86	36.37	6.94	38.99	7.06	42.06	7.20
		9.0	27.57	6.34	30.73	6.46	33.79	6.59	35.41	6.65	36.37	6.72	38.99	6.84	42.06	6.98
		11.0	27.57	6.11	30.73	6.23	33.79	6.35	35.41	6.41	36.37	6.48	38.99	6.59	42.06	6.73
	30	4.8	27.57	8.01	30.73	8.17	33.79	8.33	35.41	8.40	36.37	8.49	38.99	8.64	42.06	8.81
		6.0	27.57	7.85	30.73	8.00	33.79	8.16	35.41	8.23	36.37	8.32	38.99	8.46	42.06	8.64
		7.2	27.57	7.68	30.73	7.84	33.79	7.99	35.41	8.06	36.37	8.15	38.99	8.29	42.06	8.46
		9.0	27.57	7.44	30.73	7.59	33.79	7.74	35.41	7.81	36.37	7.90	38.99	8.03	42.06	8.20
		11.0	27.57	7.18	30.73	7.32	33.79	7.46	35.41	7.53	36.37	7.61	38.99	7.74	42.06	7.90
	40	4.8	27.57	9.65	30.73	9.85	33.79	10.04	35.41	10.12	36.37	10.24	38.99	10.41	42.06	10.63
		6.0	27.57	9.46	30.73	9.65	33.79	9.84	35.41	9.92	36.37	10.03	38.99	10.20	42.06	10.41
		7.2	27.57	9.26	30.73	9.45	33.79	9.63	35.41	9.72	36.37	9.83	38.99	9.99	42.06	10.20
		9.0	27.57	8.97	30.73	9.15	33.79	9.33	35.41	9.41	36.37	9.52	38.99	9.68	42.06	9.88
		11.0	27.57	8.65	30.73	8.83	33.79	9.00	35.41	9.07	36.37	9.18	38.99	9.33	42.06	9.53
	120%	20	4.8	27.02	6.77	30.11	6.91	33.10	7.04	34.70	7.10	35.64	7.18	38.20	7.30	41.21
6.0			27.02	6.63	30.11	6.77	33.10	6.90	34.70	6.96	35.64	7.04	38.20	7.16	41.21	7.30
7.2			27.02	6.50	30.11	6.63	33.10	6.76	34.70	6.82	35.64	6.89	38.20	7.01	41.21	7.16
9.0			27.02	6.30	30.11	6.42	33.10	6.55	34.70	6.60	35.64	6.68	38.20	6.79	41.21	6.93
11.0			27.02	6.07	30.11	6.19	33.10	6.31	34.70	6.37	35.64	6.44	38.20	6.55	41.21	6.68
30		4.8	27.02	7.95	30.11	8.11	33.10	8.27	34.70	8.34	35.64	8.44	38.20	8.58	41.21	8.76
		6.0	27.02	7.79	30.11	7.95	33.10	8.10	34.70	8.17	35.64	8.27	38.20	8.41	41.21	8.58
		7.2	27.02	7.63	30.11	7.79	33.10	7.94	34.70	8.01	35.64	8.10	38.20	8.24	41.21	8.41
		9.0	27.02	7.39	30.11	7.54	33.10	7.69	34.70	7.76	35.64	7.84	38.20	7.98	41.21	8.14
		11.0	27.02	7.13	30.11	7.27	33.10	7.41	34.70	7.48	35.64	7.56	38.20	7.69	41.21	7.85
40		4.8	27.02	9.59	30.11	9.78	33.10	9.97	34.70	10.05	35.64	10.17	38.20	10.34	41.21	10.56
		6.0	27.02	9.40	30.11	9.58	33.10	9.77	34.70	9.85	35.64	9.97	38.20	10.14	41.21	10.34
		7.2	27.02	9.20	30.11	9.39	33.10	9.57	34.70	9.65	35.64	9.76	38.20	9.93	41.21	10.13
		9.0	27.02	8.91	30.11	9.09	33.10	9.27	34.70	9.35	35.64	9.46	38.20	9.62	41.21	9.82
		11.0	27.02	8.59	30.11	8.77	33.10	8.94	34.70	9.01	35.64	9.12	38.20	9.27	41.21	9.46





# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp													
			14.0°C WB		16.0°C WB		18.0°C WB		19.0°C WB		20.0°C WB		22.0°C WB		24.0°C WB	
			20.00		23.00		26.00		27.00		28.00		30.00		32.00	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	
80%	20	4.8	21.24	4.82	23.67	4.91	26.02	5.01	27.28	5.05	28.02	5.11	30.03	5.20	32.40	5.30
		6.0	21.24	4.72	23.67	4.81	26.02	4.91	27.28	4.95	28.02	5.01	30.03	5.09	32.40	5.20
		7.2	21.24	4.62	23.67	4.72	26.02	4.81	27.28	4.85	28.02	4.90	30.03	4.99	32.40	5.09
		9.0	21.24	4.48	23.67	4.57	26.02	4.66	27.28	4.70	28.02	4.75	30.03	4.83	32.40	4.93
		11.0	21.24	4.32	23.67	4.40	26.02	4.49	27.28	4.53	28.02	4.58	30.03	4.66	32.40	4.75
	30	4.8	21.24	5.66	23.67	5.77	26.02	5.88	27.28	5.93	28.02	6.00	30.03	6.10	32.40	6.23
		6.0	21.24	5.54	23.67	5.66	26.02	5.77	27.28	5.81	28.02	5.88	30.03	5.98	32.40	6.10
		7.2	21.24	5.43	23.67	5.54	26.02	5.65	27.28	5.70	28.02	5.76	30.03	5.86	32.40	5.98
		9.0	21.24	5.26	23.67	5.37	26.02	5.47	27.28	5.52	28.02	5.58	30.03	5.68	32.40	5.79
		11.0	21.24	5.07	23.67	5.17	26.02	5.27	27.28	5.32	28.02	5.38	30.03	5.47	32.40	5.58
	40	4.8	21.24	6.82	23.67	6.96	26.02	7.09	27.28	7.15	28.02	7.24	30.03	7.36	32.40	7.51
		6.0	21.24	6.68	23.67	6.82	26.02	6.95	27.28	7.01	28.02	7.09	30.03	7.21	32.40	7.36
		7.2	21.24	6.55	23.67	6.68	26.02	6.81	27.28	6.87	28.02	6.95	30.03	7.06	32.40	7.21
		9.0	21.24	6.34	23.67	6.47	26.02	6.60	27.28	6.65	28.02	6.73	30.03	6.84	32.40	6.98
		11.0	21.24	6.11	23.67	6.24	26.02	6.36	27.28	6.41	28.02	6.49	30.03	6.60	32.40	6.73
70%	20	4.8	18.26	4.00	20.35	4.08	22.37	4.16	23.45	4.19	24.08	4.24	25.82	4.31	27.85	4.40
		6.0	18.26	3.92	20.35	4.00	22.37	4.07	23.45	4.11	24.08	4.16	25.82	4.23	27.85	4.31
		7.2	18.26	3.84	20.35	3.91	22.37	3.99	23.45	4.02	24.08	4.07	25.82	4.14	27.85	4.22
		9.0	18.26	3.72	20.35	3.79	22.37	3.87	23.45	3.90	24.08	3.94	25.82	4.01	27.85	4.09
		11.0	18.26	3.58	20.35	3.66	22.37	3.73	23.45	3.76	24.08	3.80	25.82	3.87	27.85	3.95
	30	4.8	18.26	4.70	20.35	4.79	22.37	4.88	23.45	4.92	24.08	4.98	25.82	5.07	27.85	5.17
		6.0	18.26	4.60	20.35	4.69	22.37	4.79	23.45	4.83	24.08	4.88	25.82	4.96	27.85	5.07
		7.2	18.26	4.51	20.35	4.60	22.37	4.69	23.45	4.73	24.08	4.78	25.82	4.86	27.85	4.96
		9.0	18.26	4.37	20.35	4.45	22.37	4.54	23.45	4.58	24.08	4.63	25.82	4.71	27.85	4.81
		11.0	18.26	4.21	20.35	4.29	22.37	4.38	23.45	4.41	24.08	4.47	25.82	4.54	27.85	4.63
	40	4.8	18.26	5.66	20.35	5.77	22.37	5.89	23.45	5.94	24.08	6.00	25.82	6.11	27.85	6.23
		6.0	18.26	5.55	20.35	5.66	22.37	5.77	23.45	5.82	24.08	5.88	25.82	5.98	27.85	6.11
		7.2	18.26	5.43	20.35	5.54	22.37	5.65	23.45	5.70	24.08	5.76	25.82	5.86	27.85	5.98
		9.0	18.26	5.26	20.35	5.37	22.37	5.47	23.45	5.52	24.08	5.58	25.82	5.68	27.85	5.80
		11.0	18.26	5.07	20.35	5.18	22.37	5.28	23.45	5.32	24.08	5.38	25.82	5.47	27.85	5.59
60%	20	4.8	15.65	3.26	17.44	3.32	19.18	3.39	20.10	3.42	20.64	3.46	22.13	3.52	23.87	3.59
		6.0	15.65	3.19	17.44	3.26	19.18	3.32	20.10	3.35	20.64	3.39	22.13	3.45	23.87	3.52
		7.2	15.65	3.13	17.44	3.19	19.18	3.25	20.10	3.28	20.64	3.32	22.13	3.37	23.87	3.44
		9.0	15.65	3.03	17.44	3.09	19.18	3.15	20.10	3.18	20.64	3.21	22.13	3.27	23.87	3.34
		11.0	15.65	2.92	17.44	2.98	19.18	3.04	20.10	3.06	20.64	3.10	22.13	3.15	23.87	3.22
	30	4.8	15.65	3.83	17.44	3.91	19.18	3.98	20.10	4.02	20.64	4.06	22.13	4.13	23.87	4.22
		6.0	15.65	3.75	17.44	3.83	19.18	3.90	20.10	3.93	20.64	3.98	22.13	4.05	23.87	4.13
		7.2	15.65	3.67	17.44	3.75	19.18	3.82	20.10	3.85	20.64	3.90	22.13	3.96	23.87	4.05
		9.0	15.65	3.56	17.44	3.63	19.18	3.70	20.10	3.73	20.64	3.78	22.13	3.84	23.87	3.92
		11.0	15.65	3.43	17.44	3.50	19.18	3.57	20.10	3.60	20.64	3.64	22.13	3.70	23.87	3.78
	40	4.8	15.65	4.62	17.44	4.71	19.18	4.80	20.10	4.84	20.64	4.90	22.13	4.98	23.87	5.08
		6.0	15.65	4.52	17.44	4.61	19.18	4.70	20.10	4.74	20.64	4.80	22.13	4.88	23.87	4.98
		7.2	15.65	4.43	17.44	4.52	19.18	4.61	20.10	4.65	20.64	4.70	22.13	4.78	23.87	4.88
		9.0	15.65	4.29	17.44	4.38	19.18	4.46	20.10	4.50	20.64	4.55	22.13	4.63	23.87	4.72
		11.0	15.65	4.14	17.44	4.22	19.18	4.30	20.10	4.34	20.64	4.39	22.13	4.46	23.87	4.56



# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
120%	20	4.8	32.29	6.02	30.91	5.50	29.52	4.97	28.87	4.70	28.15	4.45	26.78	3.92
		6.0	32.29	5.96	30.91	5.44	29.52	4.92	28.87	4.65	28.15	4.40	26.78	3.88
		7.2	32.29	5.89	30.91	5.38	29.52	4.87	28.87	4.60	28.15	4.35	26.78	3.83
		9.0	32.29	5.80	30.91	5.29	29.52	4.79	28.87	4.52	28.15	4.28	26.78	3.77
		11.0	32.29	5.69	30.91	5.19	29.52	4.70	28.87	4.44	28.15	4.20	26.78	3.70
	30	4.8	32.29	5.69	30.91	5.19	29.52	4.70	28.87	4.44	28.15	4.20	26.78	3.70
		6.0	32.29	5.63	30.91	5.14	29.52	4.65	28.87	4.39	28.15	4.16	26.78	3.66
		7.2	32.29	5.57	30.91	5.08	29.52	4.60	28.87	4.35	28.15	4.11	26.78	3.62
		9.0	32.29	5.48	30.91	5.00	29.52	4.52	28.87	4.27	28.15	4.05	26.78	3.56
		11.0	32.29	5.38	30.91	4.91	29.52	4.44	28.87	4.20	28.15	3.97	26.78	3.50
	40	4.8	32.29	5.36	30.91	4.89	29.52	4.42	28.87	4.18	28.15	3.96	26.78	3.49
		6.0	32.29	5.30	30.91	4.84	29.52	4.38	28.87	4.14	28.15	3.91	26.78	3.45
		7.2	32.29	5.24	30.91	4.79	29.52	4.33	28.87	4.09	28.15	3.87	26.78	3.41
		9.0	32.29	5.16	30.91	4.71	29.52	4.26	28.87	4.03	28.15	3.81	26.78	3.36
		11.0	32.29	5.06	30.91	4.62	29.52	4.18	28.87	3.95	28.15	3.74	26.78	3.29
	110%	20	4.8	30.12	5.88	28.83	5.36	27.54	4.85	26.93	4.59	26.26	4.34	24.98
6.0			30.12	5.81	28.83	5.31	27.54	4.80	26.93	4.54	26.26	4.29	24.98	3.78
7.2			30.12	5.75	28.83	5.25	27.54	4.49	26.93	4.49	26.26	4.25	24.98	3.74
9.0			30.12	5.66	28.83	5.16	27.54	4.67	26.93	4.41	26.26	4.18	24.98	3.68
11.0			30.12	5.55	28.83	5.07	27.54	4.59	26.93	4.33	26.26	4.10	24.98	3.61
30		4.8	30.12	5.55	28.83	5.07	27.54	4.59	26.93	4.33	26.26	4.10	24.98	3.61
		6.0	30.12	5.49	28.83	5.01	27.54	4.54	26.93	4.29	26.26	4.06	24.98	3.57
		7.2	30.12	5.43	28.83	4.96	27.54	4.49	26.93	4.24	26.26	4.01	24.98	3.54
		9.0	30.12	5.35	28.83	4.88	27.54	4.42	26.93	4.17	26.26	3.95	24.98	3.48
		11.0	30.12	5.25	28.83	4.79	27.54	4.33	26.93	4.09	26.26	3.88	24.98	3.41
40		4.8	30.12	5.23	28.83	4.77	27.54	4.32	26.93	4.08	26.26	3.86	24.98	3.40
		6.0	30.12	5.17	28.83	4.72	27.54	4.27	26.93	4.04	26.26	3.82	24.98	3.37
		7.2	30.12	5.12	28.83	4.67	27.54	4.23	26.93	3.99	26.26	3.78	24.98	3.33
		9.0	30.12	5.03	28.83	4.59	27.54	4.16	26.93	3.93	26.26	3.72	24.98	3.27
		11.0	30.12	4.94	28.83	4.51	27.54	4.08	26.93	3.86	26.26	3.65	24.98	3.21
100%		20	4.8	27.34	4.95	26.17	4.52	25.00	4.09	24.44	3.86	23.83	3.65	22.68
	6.0		27.34	4.90	26.17	4.47	25.00	4.04	24.44	3.82	23.83	3.62	22.68	3.18
	7.2		27.34	4.84	26.17	4.42	25.00	4.00	24.44	3.78	23.83	3.58	22.68	3.15
	9.0		27.34	4.76	26.17	4.35	25.00	3.93	24.44	3.72	23.83	3.52	22.68	3.10
	11.0		27.34	4.68	26.17	4.27	25.00	3.86	24.44	3.65	23.83	3.45	22.68	3.04
	30	4.8	27.34	4.68	26.17	4.27	25.00	3.86	24.44	3.65	23.83	3.45	22.68	3.04
		6.0	27.34	4.63	26.17	4.22	25.00	3.82	24.44	3.61	23.83	3.42	22.68	3.01
		7.2	27.34	4.58	26.17	4.18	25.00	3.78	24.44	3.57	23.83	3.38	22.68	2.98
		9.0	27.34	4.50	26.17	4.11	25.00	3.72	24.44	3.51	23.83	3.32	22.68	2.93
		11.0	27.34	4.42	26.17	4.03	25.00	3.65	24.44	3.45	23.83	3.26	22.68	2.87
	40	4.8	27.34	4.40	26.17	4.02	25.00	3.64	24.44	3.44	23.83	3.25	22.68	2.86
		6.0	27.34	4.36	26.17	3.98	25.00	3.60	24.44	3.40	23.83	3.22	22.68	2.83
		7.2	27.34	4.31	26.17	3.93	25.00	3.56	24.44	3.36	23.83	3.18	22.68	2.80
		9.0	27.34	4.24	26.17	3.87	25.00	3.50	24.44	3.31	23.83	3.13	22.68	2.76
		11.0	27.34	4.16	26.17	3.80	25.00	3.44	24.44	3.25	23.83	3.07	22.68	2.71

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
90%	20	4.8	24.65	4.37	23.60	3.99	22.54	3.61	22.04	3.41	21.49	3.23	20.45	2.84
		6.0	24.65	4.32	23.60	3.95	22.54	3.57	22.04	3.37	21.49	3.19	20.45	2.81
		7.2	24.65	4.28	23.60	3.90	22.54	3.53	22.04	3.34	21.49	3.16	20.45	2.78
		9.0	24.65	4.21	23.60	3.84	22.54	3.47	22.04	3.28	21.49	3.11	20.45	2.74
		11.0	24.65	4.13	23.60	3.77	22.54	3.41	22.04	3.22	21.49	3.05	20.45	2.69
	30	4.8	24.65	4.13	23.60	3.77	22.54	3.41	22.04	3.22	21.49	3.05	20.45	2.69
		6.0	24.65	4.09	23.60	3.73	22.54	3.37	22.04	3.19	21.49	3.02	20.45	2.66
		7.2	24.65	4.04	23.60	3.69	22.54	3.34	22.04	3.15	21.49	2.98	20.45	2.63
		9.0	24.65	3.98	23.60	3.63	22.54	3.28	22.04	3.10	21.49	2.94	20.45	2.59
		11.0	24.65	3.90	23.60	3.56	22.54	3.22	22.04	3.04	21.49	2.88	20.45	2.54
	40	4.8	24.65	3.89	23.60	3.55	22.54	3.21	22.04	3.03	21.49	2.87	20.45	2.53
		6.0	24.65	3.85	23.60	3.51	22.54	3.18	22.04	3.00	21.49	2.84	20.45	2.50
		7.2	24.65	3.81	23.60	3.47	22.54	3.14	22.04	2.97	21.49	2.81	20.45	2.48
		9.0	24.65	3.74	23.60	3.42	22.54	3.09	22.04	2.92	21.49	2.76	20.45	2.44
		11.0	24.65	3.67	23.60	3.35	22.54	3.03	22.04	2.87	21.49	2.71	20.45	2.39
80%	20	4.8	21.87	3.82	20.94	3.48	20.00	3.15	19.56	2.98	19.07	2.82	18.14	2.48
		6.0	21.87	3.78	20.94	3.45	20.00	3.12	19.56	2.95	19.07	2.79	18.14	2.46
		7.2	21.87	3.74	20.94	3.41	20.00	3.09	19.56	2.92	19.07	2.76	18.14	2.43
		9.0	21.87	3.68	20.94	3.35	20.00	3.04	19.56	2.87	19.07	2.71	18.14	2.39
		11.0	21.87	3.61	20.94	3.29	20.00	2.98	19.56	2.82	19.07	2.66	18.14	2.35
	30	4.8	21.87	3.61	20.94	3.29	20.00	2.98	19.56	2.81	19.07	2.66	18.14	2.35
		6.0	21.87	3.57	20.94	3.26	20.00	2.95	19.56	2.78	19.07	2.64	18.14	2.32
		7.2	21.87	3.53	20.94	3.22	20.00	2.92	19.56	2.75	19.07	2.61	18.14	2.30
		9.0	21.87	3.47	20.94	3.17	20.00	2.87	19.56	2.71	19.07	2.56	18.14	2.26
		11.0	21.87	3.41	20.94	3.11	20.00	2.82	19.56	2.66	19.07	2.52	18.14	2.22
	40	4.8	21.87	3.40	20.94	3.10	20.00	2.81	19.56	2.65	19.07	2.51	18.14	2.21
		6.0	21.87	3.36	20.94	3.07	20.00	2.78	19.56	2.62	19.07	2.48	18.14	2.19
		7.2	21.87	3.32	20.94	3.03	20.00	2.75	19.56	2.59	19.07	2.46	18.14	2.16
		9.0	21.87	3.27	20.94	2.98	20.00	2.70	19.56	2.55	19.07	2.42	18.14	2.13
		11.0	21.87	3.21	20.94	2.93	20.00	2.65	19.56	2.50	19.07	2.37	18.14	2.09
70%	20	4.8	19.18	3.29	18.36	3.00	17.54	2.72	17.15	2.57	16.72	2.43	15.91	2.14
		6.0	19.18	3.26	18.36	2.97	17.54	2.69	17.15	2.54	16.72	2.40	15.91	2.12
		7.2	19.18	3.22	18.36	2.94	17.54	2.66	17.15	2.51	16.72	2.38	15.91	2.09
		9.0	19.18	3.17	18.36	2.89	17.54	2.62	17.15	2.47	16.72	2.34	15.91	2.06
		11.0	19.18	3.11	18.36	2.84	17.54	2.57	17.15	2.43	16.72	2.30	15.91	2.02
	30	4.8	19.18	3.11	18.36	2.84	17.54	2.57	17.15	2.43	16.72	2.30	15.91	2.02
		6.0	19.18	3.08	18.36	2.81	17.54	2.54	17.15	2.40	16.72	2.27	15.91	2.00
		7.2	19.18	3.04	18.36	2.78	17.54	2.51	17.15	2.37	16.72	2.25	15.91	1.98
		9.0	19.18	2.99	18.36	2.73	17.54	2.47	17.15	2.34	16.72	2.21	15.91	1.95
		11.0	19.18	2.94	18.36	2.68	17.54	2.43	17.15	2.29	16.72	2.17	15.91	1.91
	40	4.8	19.18	2.93	18.36	2.67	17.54	2.42	17.15	2.28	16.72	2.16	15.91	1.90
		6.0	19.18	2.90	18.36	2.64	17.54	2.39	17.15	2.26	16.72	2.14	15.91	1.88
		7.2	19.18	2.87	18.36	2.61	17.54	2.37	17.15	2.24	16.72	2.12	15.91	1.86
		9.0	19.18	2.82	18.36	2.57	17.54	2.33	17.15	2.20	16.72	2.08	15.91	1.83
		11.0	19.18	2.77	18.36	2.53	17.54	2.29	17.15	2.16	16.72	2.04	15.91	1.80

# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
60%	20	4.8	16.40	2.79	15.70	2.55	15.00	2.30	14.67	2.18	14.30	2.06	13.61	1.81
		6.0	16.40	2.76	15.70	2.52	15.00	2.28	14.67	2.15	14.30	2.04	13.61	1.80
		7.2	16.40	2.73	15.70	2.49	15.00	2.25	14.67	2.13	14.30	2.02	13.61	1.78
		9.0	16.40	2.69	15.70	2.45	15.00	2.22	14.67	2.10	14.30	1.98	13.61	1.75
		11.0	16.40	2.64	15.70	2.41	15.00	2.18	14.67	2.06	14.30	1.95	13.61	1.71
	30	4.8	16.40	2.64	15.70	2.40	15.00	2.18	14.67	2.06	14.30	1.95	13.61	1.71
		6.0	16.40	2.61	15.70	2.38	15.00	2.15	14.67	2.03	14.30	1.93	13.61	1.70
		7.2	16.40	2.58	15.70	2.35	15.00	2.13	14.67	2.01	14.30	1.90	13.61	1.68
		9.0	16.40	2.54	15.70	2.32	15.00	2.10	14.67	1.98	14.30	1.87	13.61	1.65
		11.0	16.40	2.49	15.70	2.27	15.00	2.06	14.67	1.94	14.30	1.84	13.61	1.62
	40	4.8	16.40	2.48	15.70	2.26	15.00	2.05	14.67	1.94	14.30	1.83	13.61	1.61
		6.0	16.40	2.46	15.70	2.24	15.00	2.03	14.67	1.92	14.30	1.81	13.61	1.60
7.2		16.40	2.43	15.70	2.22	15.00	2.01	14.67	1.90	14.30	1.79	13.61	1.58	
9.0		16.40	2.39	15.70	2.18	15.00	1.97	14.67	1.86	14.30	1.76	13.61	1.55	
11.0		16.40	2.35	15.70	2.14	15.00	1.94	14.67	1.83	14.30	1.73	13.61	1.53	
50%	20	4.8	13.71	2.32	13.13	2.12	12.54	1.92	12.26	1.81	11.95	1.71	11.37	1.51
		6.0	13.71	2.30	13.13	2.09	12.54	1.90	12.26	1.79	11.95	1.70	11.37	1.49
		7.2	13.71	2.27	13.13	2.07	12.54	1.88	12.26	1.77	11.95	1.68	11.37	1.48
		9.0	13.71	2.23	13.13	2.04	12.54	1.84	12.26	1.74	11.95	1.65	11.37	1.45
		11.0	13.71	2.19	13.13	2.00	12.54	1.81	12.26	1.71	11.95	1.62	11.37	1.43
	30	4.8	13.71	2.19	13.13	2.00	12.54	1.81	12.26	1.71	11.95	1.62	11.37	1.43
		6.0	13.71	2.17	13.13	1.98	12.54	1.79	12.26	1.69	11.95	1.60	11.37	1.41
		7.2	13.71	2.15	13.13	1.96	12.54	1.77	12.26	1.67	11.95	1.58	11.37	1.40
		9.0	13.71	2.11	13.13	1.93	12.54	1.74	12.26	1.65	11.95	1.56	11.37	1.37
		11.0	13.71	2.07	13.13	1.89	12.54	1.71	12.26	1.62	11.95	1.53	11.37	1.35
	40	4.8	13.71	2.06	13.13	1.88	12.54	1.70	12.26	1.61	11.95	1.52	11.37	1.34
		6.0	13.71	2.04	13.13	1.86	12.54	1.69	12.26	1.59	11.95	1.51	11.37	1.33
7.2		13.71	2.02	13.13	1.84	12.54	1.67	12.26	1.58	11.95	1.49	11.37	1.31	
9.0		13.71	1.99	13.13	1.81	12.54	1.64	12.26	1.55	11.95	1.47	11.37	1.29	
11.0		13.71	1.95	13.13	1.78	12.54	1.61	12.26	1.52	11.95	1.44	11.37	1.27	

GMV-W280WM/A-X、GMV-W280WM/A-F

TC—Total capacity of outdoor unit; PI—Power input of outdoor unit

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
130%	20	4.8	40.792	7.92	39.05	7.23	37.30	6.54	36.47	6.18	35.56	5.85	33.83	5.15
		6.0	40.792	7.84	39.05	7.15	37.30	6.47	36.47	6.11	35.56	5.79	33.83	5.10
		7.2	40.792	7.75	39.05	7.07	37.30	6.40	36.47	6.05	35.56	5.73	33.83	5.04
		9.0	40.792	7.63	39.05	6.96	37.30	6.30	36.47	5.95	35.56	5.63	33.83	4.96
		11.0	40.792	7.49	39.05	6.83	37.30	6.18	36.47	5.84	35.56	5.53	33.83	4.87
	30	4.8	40.792	7.48	39.05	6.83	37.30	6.18	36.47	5.84	35.56	5.53	33.83	4.87
		6.0	40.792	7.40	39.05	6.76	37.30	6.12	36.47	5.78	35.56	5.47	33.83	4.82
		7.2	40.792	7.32	39.05	6.68	37.30	6.05	36.47	5.72	35.56	5.41	33.83	4.77
		9.0	40.792	7.21	39.05	6.58	37.30	5.95	36.47	5.62	35.56	5.32	33.83	4.69
		11.0	40.792	7.07	39.05	6.46	37.30	5.84	36.47	5.52	35.56	5.22	33.83	4.60
	40	4.8	40.792	7.05	39.05	6.43	37.30	5.82	36.47	5.50	35.56	5.20	33.83	4.58
		6.0	40.792	6.97	39.05	6.36	37.30	5.76	36.47	5.44	35.56	5.15	33.83	4.54
7.2		40.792	6.90	39.05	6.30	37.30	5.70	36.47	5.38	35.56	5.09	33.83	4.49	
9.0		40.792	6.79	39.05	6.19	37.30	5.60	36.47	5.29	35.56	5.01	33.83	4.41	
11.0		40.792	6.66	39.05	6.08	37.30	5.50	36.47	5.20	35.56	4.92	33.83	4.33	

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
120%	20	4.8	40.683	8.13	38.95	7.42	37.20	6.71	36.37	6.34	35.47	6.00	33.74	5.29
		6.0	40.683	8.04	38.95	7.34	37.20	6.64	36.37	6.28	35.47	5.94	33.74	5.23
		7.2	40.683	7.96	38.95	7.26	37.20	6.57	36.37	6.21	35.47	5.88	33.74	5.18
		9.0	40.683	7.83	38.95	7.14	37.20	6.46	36.37	6.11	35.47	5.78	33.74	5.09
		11.0	40.683	7.68	38.95	7.01	37.20	6.35	36.37	5.99	35.47	5.67	33.74	5.00
	30	4.8	40.683	7.68	38.95	7.01	37.20	6.34	36.37	5.99	35.47	5.67	33.74	5.00
		6.0	40.683	7.60	38.95	6.94	37.20	6.28	36.37	5.93	35.47	5.61	33.74	4.94
		7.2	40.683	7.52	38.95	6.86	37.20	6.21	36.37	5.87	35.47	5.55	33.74	4.89
		9.0	40.683	7.40	38.95	6.75	37.20	6.11	36.37	5.77	35.47	5.46	33.74	4.81
		11.0	40.683	7.26	38.95	6.62	37.20	6.00	36.37	5.66	35.47	5.36	33.74	4.72
	40	4.8	40.683	7.23	38.95	6.60	37.20	5.97	36.37	5.64	35.47	5.34	33.74	4.71
		6.0	40.683	7.16	38.95	6.53	37.20	5.91	36.37	5.58	35.47	5.29	33.74	4.66
		7.2	40.683	7.08	38.95	6.46	37.20	5.85	36.37	5.52	35.47	5.23	33.74	4.61
		9.0	40.683	6.96	38.95	6.36	37.20	5.75	36.37	5.43	35.47	5.14	33.74	4.53
		11.0	40.683	6.84	38.95	6.24	37.20	5.65	36.37	5.33	35.47	5.05	33.74	4.45
	110%	20	4.8	37.949	7.93	36.33	7.24	34.70	6.55	33.93	6.19	33.08	5.86	31.48
6.0			37.949	7.85	36.33	7.16	34.70	6.48	33.93	6.12	33.08	5.80	31.48	5.11
7.2			37.949	7.76	36.33	7.09	34.70	6.06	33.93	6.06	33.08	5.73	31.48	5.05
9.0			37.949	7.64	36.33	6.97	34.70	6.31	33.93	5.96	33.08	5.64	31.48	4.97
11.0			37.949	7.50	36.33	6.84	34.70	6.19	33.93	5.85	33.08	5.54	31.48	4.88
30		4.8	37.949	7.50	36.33	6.84	34.70	6.19	33.93	5.85	33.08	5.54	31.48	4.88
		6.0	37.949	7.42	36.33	6.77	34.70	6.12	33.93	5.79	33.08	5.48	31.48	4.82
		7.2	37.949	7.34	36.33	6.70	34.70	6.06	33.93	5.72	33.08	5.42	31.48	4.77
		9.0	37.949	7.22	36.33	6.59	34.70	5.96	33.93	5.63	33.08	5.33	31.48	4.69
		11.0	37.949	7.08	36.33	6.47	34.70	5.85	33.93	5.53	33.08	5.23	31.48	4.61
40		4.8	37.949	7.06	36.33	6.44	34.70	5.83	33.93	5.51	33.08	5.21	31.48	4.59
		6.0	37.949	6.98	36.33	6.37	34.70	5.77	33.93	5.45	33.08	5.16	31.48	4.54
		7.2	37.949	6.91	36.33	6.30	34.70	5.71	33.93	5.39	33.08	5.10	31.48	4.49
		9.0	37.949	6.80	36.33	6.20	34.70	5.61	33.93	5.30	33.08	5.02	31.48	4.42
		11.0	37.949	6.67	36.33	6.09	34.70	5.51	33.93	5.21	33.08	4.93	31.48	4.34
100%		20	4.8	34.449	6.68	32.98	6.10	31.50	5.52	30.80	5.21	30.03	4.93	28.57
	6.0		34.449	6.61	32.98	6.03	31.50	5.46	30.80	5.16	30.03	4.88	28.57	4.30
	7.2		34.449	6.54	32.98	5.97	31.50	5.40	30.80	5.10	30.03	4.83	28.57	4.25
	9.0		34.449	6.43	32.98	5.87	31.50	5.31	30.80	5.02	30.03	4.75	28.57	4.18
	11.0		34.449	6.31	32.98	5.76	31.50	5.21	30.80	4.93	30.03	4.66	28.57	4.11
	30	4.8	34.449	6.31	32.98	5.76	31.50	5.21	30.80	4.93	30.03	4.66	28.57	4.11
		6.0	34.449	6.24	32.98	5.70	31.50	5.16	30.80	4.87	30.03	4.61	28.57	4.06
		7.2	34.449	6.18	32.98	5.64	31.50	5.10	30.80	4.82	30.03	4.56	28.57	4.02
		9.0	34.449	6.08	32.98	5.55	31.50	5.02	30.80	4.74	30.03	4.49	28.57	3.95
		11.0	34.449	5.97	32.98	5.44	31.50	4.93	30.80	4.65	30.03	4.41	28.57	3.88
	40	4.8	34.449	5.94	32.98	5.42	31.50	4.91	30.80	4.64	30.03	4.39	28.57	3.87
		6.0	34.449	5.88	32.98	5.37	31.50	4.86	30.80	4.59	30.03	4.34	28.57	3.83
		7.2	34.449	5.82	32.98	5.31	31.50	4.80	30.80	4.54	30.03	4.30	28.57	3.78
		9.0	34.449	5.72	32.98	5.22	31.50	4.73	30.80	4.47	30.03	4.23	28.57	3.72
		11.0	34.449	5.62	32.98	5.13	31.50	4.64	30.80	4.38	30.03	4.15	28.57	3.65



# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
90%	20	4.8	31.059	5.90	29.73	5.38	28.40	4.87	27.77	4.60	27.08	4.36	25.76	3.84
		6.0	31.059	5.84	29.73	5.33	28.40	4.82	27.77	4.55	27.08	4.31	25.76	3.80
		7.2	31.059	5.77	29.73	5.27	28.40	4.77	27.77	4.51	27.08	4.26	25.76	3.76
		9.0	31.059	5.68	29.73	5.18	28.40	4.69	27.77	4.43	27.08	4.19	25.76	3.70
		11.0	31.059	5.58	29.73	5.09	28.40	4.60	27.77	4.35	27.08	4.12	25.76	3.63
	30	4.8	31.059	5.57	29.73	5.09	28.40	4.60	27.77	4.35	27.08	4.12	25.76	3.63
		6.0	31.059	5.51	29.73	5.03	28.40	4.55	27.77	4.30	27.08	4.07	25.76	3.59
		7.2	31.059	5.46	29.73	4.98	28.40	4.51	27.77	4.26	27.08	4.03	25.76	3.55
		9.0	31.059	5.37	29.73	4.90	28.40	4.43	27.77	4.19	27.08	3.96	25.76	3.49
		11.0	31.059	5.27	29.73	4.81	28.40	4.35	27.77	4.11	27.08	3.89	25.76	3.43
	40	4.8	31.059	5.25	29.73	4.79	28.40	4.34	27.77	4.10	27.08	3.88	25.76	3.41
		6.0	31.059	5.19	29.73	4.74	28.40	4.29	27.77	4.05	27.08	3.84	25.76	3.38
		7.2	31.059	5.14	29.73	4.69	28.40	4.24	27.77	4.01	27.08	3.79	25.76	3.34
		9.0	31.059	5.05	29.73	4.61	28.40	4.17	27.77	3.94	27.08	3.73	25.76	3.29
		11.0	31.059	4.96	29.73	4.53	28.40	4.10	27.77	3.87	27.08	3.66	25.76	3.23
80%	20	4.8	27.559	5.15	26.38	4.70	25.20	4.26	24.64	4.02	24.02	3.81	22.86	3.35
		6.0	27.559	5.10	26.38	4.65	25.20	4.21	24.64	3.98	24.02	3.77	22.86	3.32
		7.2	27.559	5.04	26.38	4.60	25.20	4.17	24.64	3.94	24.02	3.72	22.86	3.28
		9.0	27.559	4.96	26.38	4.53	25.20	4.10	24.64	3.87	24.02	3.66	22.86	3.23
		11.0	27.559	4.87	26.38	4.44	25.20	4.02	24.64	3.80	24.02	3.60	22.86	3.17
	30	4.8	27.559	4.87	26.38	4.44	25.20	4.02	24.64	3.80	24.02	3.60	22.86	3.17
		6.0	27.559	4.82	26.38	4.40	25.20	3.98	24.64	3.76	24.02	3.56	22.86	3.13
		7.2	27.559	4.77	26.38	4.35	25.20	3.94	24.64	3.72	24.02	3.52	22.86	3.10
		9.0	27.559	4.69	26.38	4.28	25.20	3.87	24.64	3.66	24.02	3.46	22.86	3.05
		11.0	27.559	4.60	26.38	4.20	25.20	3.80	24.64	3.59	24.02	3.40	22.86	2.99
	40	4.8	27.559	4.59	26.38	4.18	25.20	3.79	24.64	3.58	24.02	3.39	22.86	2.98
		6.0	27.559	4.54	26.38	4.14	25.20	3.75	24.64	3.54	24.02	3.35	22.86	2.95
		7.2	27.559	4.49	26.38	4.10	25.20	3.71	24.64	3.50	24.02	3.31	22.86	2.92
		9.0	27.559	4.41	26.38	4.03	25.20	3.65	24.64	3.44	24.02	3.26	22.86	2.87
		11.0	27.559	4.33	26.38	3.95	25.20	3.58	24.64	3.38	24.02	3.20	22.86	2.82
70%	20	4.8	24.169	4.44	23.14	4.05	22.10	3.67	21.61	3.47	21.07	3.28	20.05	2.89
		6.0	24.169	4.39	23.14	4.01	22.10	3.63	21.61	3.43	21.07	3.25	20.05	2.86
		7.2	24.169	4.35	23.14	3.97	22.10	3.59	21.61	3.39	21.07	3.21	20.05	2.83
		9.0	24.169	4.28	23.14	3.90	22.10	3.53	21.61	3.34	21.07	3.16	20.05	2.78
		11.0	24.169	4.20	23.14	3.83	22.10	3.47	21.61	3.28	21.07	3.10	20.05	2.73
	30	4.8	24.169	4.20	23.14	3.83	22.10	3.47	21.61	3.27	21.07	3.10	20.05	2.73
		6.0	24.169	4.15	23.14	3.79	22.10	3.43	21.61	3.24	21.07	3.07	20.05	2.70
		7.2	24.169	4.11	23.14	3.75	22.10	3.39	21.61	3.21	21.07	3.03	20.05	2.67
		9.0	24.169	4.04	23.14	3.69	22.10	3.34	21.61	3.15	21.07	2.98	20.05	2.63
		11.0	24.169	3.97	23.14	3.62	22.10	3.28	21.61	3.10	21.07	2.93	20.05	2.58
	40	4.8	24.169	3.95	23.14	3.61	22.10	3.26	21.61	3.08	21.07	2.92	20.05	2.57
		6.0	24.169	3.91	23.14	3.57	22.10	3.23	21.61	3.05	21.07	2.89	20.05	2.54
		7.2	24.169	3.87	23.14	3.53	22.10	3.19	21.61	3.02	21.07	2.86	20.05	2.52
		9.0	24.169	3.81	23.14	3.47	22.10	3.14	21.61	2.97	21.07	2.81	20.05	2.48
		11.0	24.169	3.74	23.14	3.41	22.10	3.08	21.61	2.91	21.07	2.76	20.05	2.43

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
60%	20	4.8	20.670	3.77	19.79	3.44	18.90	3.11	18.48	2.94	18.02	2.78	17.14	2.45
		6.0	20.670	3.73	19.79	3.40	18.90	3.08	18.48	2.91	18.02	2.75	17.14	2.42
		7.2	20.670	3.69	19.79	3.36	18.90	3.04	18.48	2.88	18.02	2.72	17.14	2.40
		9.0	20.670	3.63	19.79	3.31	18.90	2.99	18.48	2.83	18.02	2.68	17.14	2.36
		11.0	20.670	3.56	19.79	3.25	18.90	2.94	18.48	2.78	18.02	2.63	17.14	2.31
	30	4.8	20.670	3.56	19.79	3.25	18.90	2.94	18.48	2.78	18.02	2.63	17.14	2.31
		6.0	20.670	3.52	19.79	3.21	18.90	2.91	18.48	2.75	18.02	2.60	17.14	2.29
		7.2	20.670	3.48	19.79	3.18	18.90	2.88	18.48	2.72	18.02	2.57	17.14	2.27
		9.0	20.670	3.43	19.79	3.13	18.90	2.83	18.48	2.67	18.02	2.53	17.14	2.23
		11.0	20.670	3.36	19.79	3.07	18.90	2.78	18.48	2.62	18.02	2.48	17.14	2.19
	40	4.8	20.670	3.35	19.79	3.06	18.90	2.77	18.48	2.61	18.02	2.47	17.14	2.18
		6.0	20.670	3.31	19.79	3.02	18.90	2.74	18.48	2.59	18.02	2.45	17.14	2.16
7.2		20.670	3.28	19.79	2.99	18.90	2.71	18.48	2.56	18.02	2.42	17.14	2.13	
9.0		20.670	3.23	19.79	2.94	18.90	2.66	18.48	2.52	18.02	2.38	17.14	2.10	
11.0		20.670	3.17	19.79	2.89	18.90	2.61	18.48	2.47	18.02	2.34	17.14	2.06	
50%	20	4.8	17.279	3.13	16.54	2.86	15.80	2.59	15.45	2.44	15.06	2.31	14.33	2.04
		6.0	17.279	3.10	16.54	2.83	15.80	2.56	15.45	2.42	15.06	2.29	14.33	2.02
		7.2	17.279	3.07	16.54	2.80	15.80	2.53	15.45	2.39	15.06	2.26	14.33	1.99
		9.0	17.279	3.02	16.54	2.75	15.80	2.49	15.45	2.35	15.06	2.23	14.33	1.96
		11.0	17.279	2.96	16.54	2.70	15.80	2.44	15.45	2.31	15.06	2.19	14.33	1.93
	30	4.8	17.279	2.96	16.54	2.70	15.80	2.44	15.45	2.31	15.06	2.19	14.33	1.93
		6.0	17.279	2.93	16.54	2.67	15.80	2.42	15.45	2.28	15.06	2.16	14.33	1.90
		7.2	17.279	2.90	16.54	2.64	15.80	2.39	15.45	2.26	15.06	2.14	14.33	1.88
		9.0	17.279	2.85	16.54	2.60	15.80	2.35	15.45	2.22	15.06	2.10	14.33	1.85
		11.0	17.279	2.80	16.54	2.55	15.80	2.31	15.45	2.18	15.06	2.07	14.33	1.82
	40	4.8	17.279	2.79	16.54	2.54	15.80	2.30	15.45	2.17	15.06	2.06	14.33	1.81
		6.0	17.279	2.76	16.54	2.52	15.80	2.28	15.45	2.15	15.06	2.04	14.33	1.79
7.2		17.279	2.73	16.54	2.49	15.80	2.25	15.45	2.13	15.06	2.01	14.33	1.77	
9.0		17.279	2.68	16.54	2.45	15.80	2.22	15.45	2.09	15.06	1.98	14.33	1.75	
11.0		17.279	2.63	16.54	2.40	15.80	2.18	15.45	2.06	15.06	1.95	14.33	1.71	

GMV-W335WM/A-X、GMV-W335WM/A-F

TC—Total capacity of outdoor unit; PI—Power input of outdoor unit

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
130%	20	4.8	48.56	10.78	46.49	9.84	44.40	8.90	43.42	8.41	42.33	7.96	40.28	7.01
		6.0	48.56	10.67	46.49	9.73	44.40	8.81	43.42	8.32	42.33	7.88	40.28	6.94
		7.2	48.56	10.55	46.49	9.63	44.40	8.71	43.42	8.23	42.33	7.79	40.28	6.86
		9.0	48.56	10.38	46.49	9.47	44.40	8.57	43.42	8.10	42.33	7.67	40.28	6.75
		11.0	48.56	10.19	46.49	9.30	44.40	8.42	43.42	7.95	42.33	7.53	40.28	6.63
	30	4.8	48.56	10.19	46.49	9.30	44.40	8.41	43.42	7.95	42.33	7.52	40.28	6.63
		6.0	48.56	10.08	46.49	9.20	44.40	8.32	43.42	7.86	42.33	7.44	40.28	6.56
		7.2	48.56	9.97	46.49	9.10	44.40	8.23	43.42	7.78	42.33	7.36	40.28	6.49
		9.0	48.56	9.81	46.49	8.95	44.40	8.10	43.42	7.65	42.33	7.24	40.28	6.38
		11.0	48.56	9.63	46.49	8.79	44.40	7.95	43.42	7.51	42.33	7.11	40.28	6.26
	40	4.8	48.56	9.59	46.49	8.75	44.40	7.92	43.42	7.48	42.33	7.08	40.28	6.24
		6.0	48.56	9.49	46.49	8.66	44.40	7.84	43.42	7.41	42.33	7.01	40.28	6.17
7.2		48.56	9.39	46.49	8.57	44.40	7.75	43.42	7.33	42.33	6.93	40.28	6.11	
9.0		48.56	9.24	46.49	8.43	44.40	7.63	43.42	7.21	42.33	6.82	40.28	6.01	
11.0		48.56	9.07	46.49	8.27	44.40	7.49	43.42	7.07	42.33	6.70	40.28	5.90	



# GMV WATER DC Inverter VRF Units Technical Sales Guide

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
120%	20	4.8	48.43	11.06	46.37	10.10	44.29	9.14	43.30	8.63	42.22	8.17	40.17	7.20
		6.0	48.43	10.95	46.37	9.99	44.29	9.04	43.30	8.54	42.22	8.08	40.17	7.12
		7.2	48.43	10.83	46.37	9.88	44.29	8.94	43.30	8.45	42.22	8.00	40.17	7.04
		9.0	48.43	10.65	46.37	9.72	44.29	8.80	43.30	8.31	42.22	7.87	40.17	6.93
		11.0	48.43	10.46	46.37	9.54	44.29	8.64	43.30	8.16	42.22	7.72	40.17	6.80
	30	4.8	48.43	10.45	46.37	9.54	44.29	8.63	43.30	8.16	42.22	7.72	40.17	6.80
		6.0	48.43	10.34	46.37	9.44	44.29	8.54	43.30	8.07	42.22	7.64	40.17	6.73
		7.2	48.43	10.23	46.37	9.34	44.29	8.45	43.30	7.98	42.22	7.56	40.17	6.66
		9.0	48.43	10.07	46.37	9.19	44.29	8.31	43.30	7.85	42.22	7.43	40.17	6.55
		11.0	48.43	9.88	46.37	9.02	44.29	8.16	43.30	7.71	42.22	7.30	40.17	6.43
	40	4.8	48.43	9.84	46.37	8.98	44.29	8.13	43.30	7.68	42.22	7.27	40.17	6.40
		6.0	48.43	9.74	46.37	8.89	44.29	8.04	43.30	7.60	42.22	7.19	40.17	6.34
		7.2	48.43	9.64	46.37	8.79	44.29	7.96	43.30	7.52	42.22	7.12	40.17	6.27
		9.0	48.43	9.48	46.37	8.65	44.29	7.83	43.30	7.40	42.22	7.00	40.17	6.17
		11.0	48.43	9.30	46.37	8.49	44.29	7.68	43.30	7.26	42.22	6.87	40.17	6.05
	110%	20	4.8	45.18	10.80	43.25	9.85	41.31	8.92	40.39	8.43	39.38	7.97	37.47
6.0			45.18	10.68	43.25	9.75	41.31	8.82	40.39	8.34	39.38	7.89	37.47	6.95
7.2			45.18	10.57	43.25	9.64	41.31	8.25	40.39	8.25	39.38	7.80	37.47	6.87
9.0			45.18	10.40	43.25	9.49	41.31	8.59	40.39	8.11	39.38	7.68	37.47	6.76
11.0			45.18	10.20	43.25	9.31	41.31	8.43	40.39	7.96	39.38	7.54	37.47	6.64
30		4.8	45.18	10.20	43.25	9.31	41.31	8.43	40.39	7.96	39.38	7.53	37.47	6.64
		6.0	45.18	10.09	43.25	9.21	41.31	8.34	40.39	7.88	39.38	7.45	37.47	6.57
		7.2	45.18	9.99	43.25	9.11	41.31	8.25	40.39	7.79	39.38	7.37	37.47	6.50
		9.0	45.18	9.82	43.25	8.96	41.31	8.11	40.39	7.66	39.38	7.25	37.47	6.39
		11.0	45.18	9.64	43.25	8.80	41.31	7.96	40.39	7.52	39.38	7.12	37.47	6.27
40		4.8	45.18	9.61	43.25	8.77	41.31	7.93	40.39	7.50	39.38	7.10	37.47	6.25
		6.0	45.18	9.50	43.25	8.67	41.31	7.85	40.39	7.42	39.38	7.02	37.47	6.18
		7.2	45.18	9.40	43.25	8.58	41.31	7.77	40.39	7.34	39.38	6.94	37.47	6.12
		9.0	45.18	9.25	43.25	8.44	41.31	7.64	40.39	7.22	39.38	6.83	37.47	6.02
		11.0	45.18	9.08	43.25	8.29	41.31	7.50	40.39	7.08	39.38	6.71	37.47	5.91
100%		20	4.8	41.01	9.09	39.26	8.30	37.50	7.51	36.67	7.09	35.75	6.72	34.02
	6.0		41.01	9.00	39.26	8.21	37.50	7.43	36.67	7.02	35.75	6.64	34.02	5.85
	7.2		41.01	8.90	39.26	8.12	37.50	7.35	36.67	6.94	35.75	6.57	34.02	5.79
	9.0		41.01	8.75	39.26	7.99	37.50	7.23	36.67	6.83	35.75	6.47	34.02	5.69
	11.0		41.01	8.59	39.26	7.84	37.50	7.10	36.67	6.71	35.75	6.35	34.02	5.59
	30	4.8	41.01	8.59	39.26	7.84	37.50	7.10	36.67	6.70	35.75	6.34	34.02	5.59
		6.0	41.01	8.50	39.26	7.76	37.50	7.02	36.67	6.63	35.75	6.28	34.02	5.53
		7.2	41.01	8.41	39.26	7.67	37.50	6.94	36.67	6.56	35.75	6.21	34.02	5.47
		9.0	41.01	8.27	39.26	7.55	37.50	6.83	36.67	6.45	35.75	6.11	34.02	5.38
		11.0	41.01	8.12	39.26	7.41	37.50	6.71	36.67	6.34	35.75	6.00	34.02	5.28
	40	4.8	41.01	8.09	39.26	7.38	37.50	6.68	36.67	6.31	35.75	5.97	34.02	5.26
		6.0	41.01	8.00	39.26	7.30	37.50	6.61	36.67	6.25	35.75	5.91	34.02	5.21
		7.2	41.01	7.92	39.26	7.23	37.50	6.54	36.67	6.18	35.75	5.85	34.02	5.15
		9.0	41.01	7.79	39.26	7.11	37.50	6.43	36.67	6.08	35.75	5.75	34.02	5.07
		11.0	41.01	7.65	39.26	6.98	37.50	6.31	36.67	5.97	35.75	5.65	34.02	4.97

Combi nation	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp												
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB		
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	
90%	20	4.8	36.97	8.03	35.40	7.33	33.81	6.63	33.06	6.27	32.23	5.93	30.67	5.22	
		6.0	36.97	7.94	35.40	7.25	33.81	6.56	33.06	6.20	32.23	5.87	30.67	5.17	
		7.2	36.97	7.86	35.40	7.17	33.81	6.49	33.06	6.13	32.23	5.80	30.67	5.11	
		9.0	36.97	7.73	35.40	7.06	33.81	6.39	33.06	6.03	32.23	5.71	30.67	5.03	
		11.0	36.97	7.59	35.40	6.93	33.81	6.27	33.06	5.92	32.23	5.60	30.67	4.94	
	30	4.8	36.97	7.59	35.40	6.92	33.81	6.27	33.06	5.92	32.23	5.60	30.67	4.94	
		6.0	36.97	7.51	35.40	6.85	33.81	6.20	33.06	5.86	32.23	5.54	30.67	4.88	
		7.2	36.97	7.43	35.40	6.78	33.81	6.13	33.06	5.79	32.23	5.48	30.67	4.83	
		9.0	36.97	7.30	35.40	6.67	33.81	6.03	33.06	5.70	32.23	5.40	30.67	4.75	
		11.0	36.97	7.17	35.40	6.54	33.81	5.92	33.06	5.60	32.23	5.30	30.67	4.66	
	40	4.8	36.97	7.14	35.40	6.52	33.81	5.90	33.06	5.57	32.23	5.28	30.67	4.65	
		6.0	36.97	7.07	35.40	6.45	33.81	5.84	33.06	5.52	32.23	5.22	30.67	4.60	
		7.2	36.97	6.99	35.40	6.38	33.81	5.78	33.06	5.46	32.23	5.16	30.67	4.55	
		9.0	36.97	6.88	35.40	6.28	33.81	5.68	33.06	5.37	32.23	5.08	30.67	4.47	
		11.0	36.97	6.75	35.40	6.16	33.81	5.58	33.06	5.27	32.23	4.99	30.67	4.39	
	80%	20	4.8	32.81	7.01	31.41	6.40	30.00	5.79	29.33	5.47	28.60	5.18	27.21	4.56
			6.0	32.81	6.94	31.41	6.33	30.00	5.73	29.33	5.41	28.60	5.13	27.21	4.51
			7.2	32.81	6.86	31.41	6.27	30.00	5.67	29.33	5.36	28.60	5.07	27.21	4.47
			9.0	32.81	6.75	31.41	6.16	30.00	5.58	29.33	5.27	28.60	4.99	27.21	4.39
			11.0	32.81	6.63	31.41	6.05	30.00	5.47	29.33	5.17	28.60	4.90	27.21	4.31
30		4.8	32.81	6.63	31.41	6.05	30.00	5.47	29.33	5.17	28.60	4.89	27.21	4.31	
		6.0	32.81	6.56	31.41	5.98	30.00	5.42	29.33	5.12	28.60	4.84	27.21	4.27	
		7.2	32.81	6.49	31.41	5.92	30.00	5.36	29.33	5.06	28.60	4.79	27.21	4.22	
		9.0	32.81	6.38	31.41	5.82	30.00	5.27	29.33	4.98	28.60	4.71	27.21	4.15	
		11.0	32.81	6.26	31.41	5.72	30.00	5.17	29.33	4.89	28.60	4.63	27.21	4.07	
40		4.8	32.81	6.24	31.41	5.70	30.00	5.15	29.33	4.87	28.60	4.61	27.21	4.06	
		6.0	32.81	6.17	31.41	5.64	30.00	5.10	29.33	4.82	28.60	4.56	27.21	4.02	
		7.2	32.81	6.11	31.41	5.57	30.00	5.04	29.33	4.77	28.60	4.51	27.21	3.97	
		9.0	32.81	6.01	31.41	5.48	30.00	4.96	29.33	4.69	28.60	4.44	27.21	3.91	
		11.0	32.81	5.90	31.41	5.38	30.00	4.87	29.33	4.60	28.60	4.36	27.21	3.84	
70%		20	4.8	28.77	6.05	27.55	5.52	26.31	4.99	25.72	4.72	25.08	4.47	23.87	3.93
			6.0	28.77	5.98	27.55	5.46	26.31	4.94	25.72	4.67	25.08	4.42	23.87	3.89
			7.2	28.77	5.92	27.55	5.40	26.31	4.89	25.72	4.62	25.08	4.37	23.87	3.85
			9.0	28.77	5.82	27.55	5.31	26.31	4.81	25.72	4.54	25.08	4.30	23.87	3.79
			11.0	28.77	5.71	27.55	5.21	26.31	4.72	25.72	4.46	25.08	4.22	23.87	3.72
	30	4.8	28.77	5.71	27.55	5.21	26.31	4.72	25.72	4.46	25.08	4.22	23.87	3.72	
		6.0	28.77	5.65	27.55	5.16	26.31	4.67	25.72	4.41	25.08	4.17	23.87	3.68	
		7.2	28.77	5.59	27.55	5.10	26.31	4.62	25.72	4.36	25.08	4.13	23.87	3.64	
		9.0	28.77	5.50	27.55	5.02	26.31	4.54	25.72	4.29	25.08	4.06	23.87	3.58	
		11.0	28.77	5.40	27.55	4.93	26.31	4.46	25.72	4.21	25.08	3.99	23.87	3.51	
	40	4.8	28.77	5.38	27.55	4.91	26.31	4.44	25.72	4.20	25.08	3.97	23.87	3.50	
		6.0	28.77	5.32	27.55	4.86	26.31	4.40	25.72	4.15	25.08	3.93	23.87	3.46	
		7.2	28.77	5.26	27.55	4.80	26.31	4.35	25.72	4.11	25.08	3.89	23.87	3.43	
		9.0	28.77	5.18	27.55	4.73	26.31	4.28	25.72	4.04	25.08	3.83	23.87	3.37	
		11.0	28.77	5.08	27.55	4.64	26.31	4.20	25.72	3.97	25.08	3.75	23.87	3.31	

Combination	Inlet water temp. °C	Water volume m <sup>3</sup> /h	Indoor air temp											
			16.0°C DB		18.0°C DB		20.0°C DB		21.0°C DB		22.0°C DB		24.0°C DB	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW	KW
60%	20	4.8	24.61	5.12	23.56	4.68	22.50	4.23	22.00	4.00	21.45	3.78	20.41	3.33
		6.0	24.61	5.07	23.56	4.63	22.50	4.19	22.00	3.96	21.45	3.74	20.41	3.30
		7.2	24.61	5.02	23.56	4.58	22.50	4.14	22.00	3.91	21.45	3.70	20.41	3.26
		9.0	24.61	4.93	23.56	4.50	22.50	4.08	22.00	3.85	21.45	3.64	20.41	3.21
		11.0	24.61	4.84	23.56	4.42	22.50	4.00	22.00	3.78	21.45	3.58	20.41	3.15
	30	4.8	24.61	4.84	23.56	4.42	22.50	4.00	22.00	3.78	21.45	3.58	20.41	3.15
		6.0	24.61	4.79	23.56	4.37	22.50	3.96	22.00	3.74	21.45	3.54	20.41	3.12
		7.2	24.61	4.74	23.56	4.33	22.50	3.91	22.00	3.70	21.45	3.50	20.41	3.08
		9.0	24.61	4.66	23.56	4.25	22.50	3.85	22.00	3.64	21.45	3.44	20.41	3.03
		11.0	24.61	4.58	23.56	4.18	22.50	3.78	22.00	3.57	21.45	3.38	20.41	2.98
	40	4.8	24.61	4.56	23.56	4.16	22.50	3.77	22.00	3.56	21.45	3.37	20.41	2.97
		6.0	24.61	4.51	23.56	4.12	22.50	3.73	22.00	3.52	21.45	3.33	20.41	2.93
		7.2	24.61	4.46	23.56	4.07	22.50	3.69	22.00	3.48	21.45	3.30	20.41	2.90
		9.0	24.61	4.39	23.56	4.01	22.50	3.63	22.00	3.43	21.45	3.24	20.41	2.86
		11.0	24.61	4.31	23.56	3.93	22.50	3.56	22.00	3.36	21.45	3.18	20.41	2.80
50%	20	4.8	20.57	4.26	19.69	3.89	18.81	3.52	18.39	3.33	17.93	3.15	17.06	2.77
		6.0	20.57	4.22	19.69	3.85	18.81	3.48	18.39	3.29	17.93	3.11	17.06	2.74
		7.2	20.57	4.17	19.69	3.81	18.81	3.45	18.39	3.26	17.93	3.08	17.06	2.71
		9.0	20.57	4.10	19.69	3.75	18.81	3.39	18.39	3.20	17.93	3.03	17.06	2.67
		11.0	20.57	4.03	19.69	3.68	18.81	3.33	18.39	3.14	17.93	2.98	17.06	2.62
	30	4.8	20.57	4.03	19.69	3.68	18.81	3.33	18.39	3.14	17.93	2.97	17.06	2.62
		6.0	20.57	3.98	19.69	3.64	18.81	3.29	18.39	3.11	17.93	2.94	17.06	2.59
		7.2	20.57	3.94	19.69	3.60	18.81	3.26	18.39	3.08	17.93	2.91	17.06	2.56
		9.0	20.57	3.88	19.69	3.54	18.81	3.20	18.39	3.03	17.93	2.86	17.06	2.52
		11.0	20.57	3.81	19.69	3.47	18.81	3.14	18.39	2.97	17.93	2.81	17.06	2.48
	40	4.8	20.57	3.79	19.69	3.46	18.81	3.13	18.39	2.96	17.93	2.80	17.06	2.47
		6.0	20.57	3.75	19.69	3.42	18.81	3.10	18.39	2.93	17.93	2.77	17.06	2.44
		7.2	20.57	3.71	19.69	3.39	18.81	3.07	18.39	2.90	17.93	2.74	17.06	2.42
		9.0	20.57	3.65	19.69	3.33	18.81	3.02	18.39	2.85	17.93	2.70	17.06	2.38
		11.0	20.57	3.58	19.69	3.27	18.81	2.96	18.39	2.80	17.93	2.65	17.06	2.33

## ➔ 7.2 Correction of Capacity Along with Piping Length and Height Drop

Instruction of symbol:

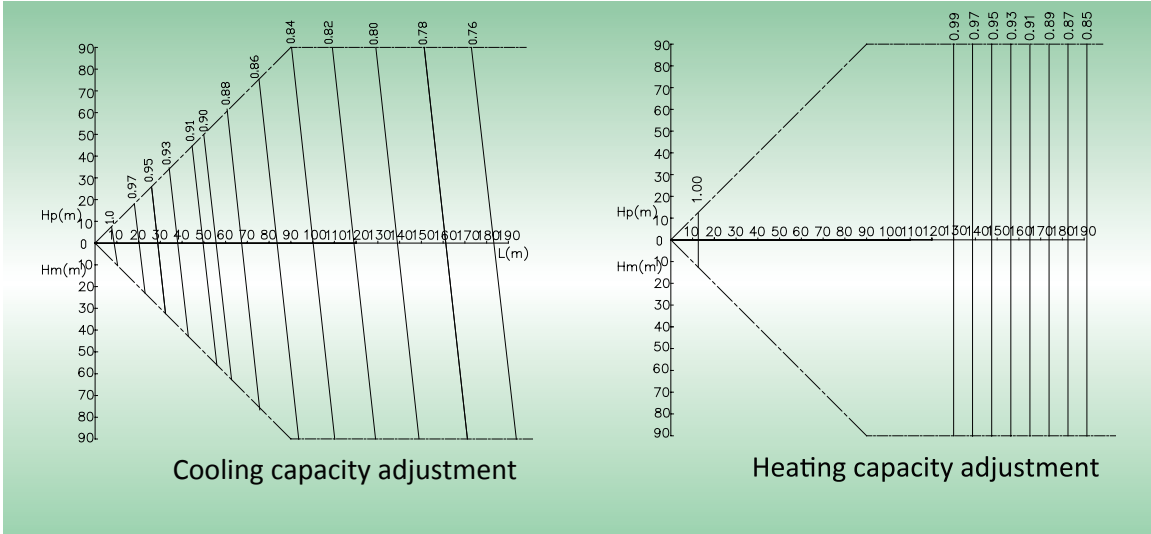
Hp: Height drop (m) between two units when the indoor unit is in lower position of outdoor unit;

Hm: Height drop (m) between two units when the indoor unit is in upper position of outdoor unit;

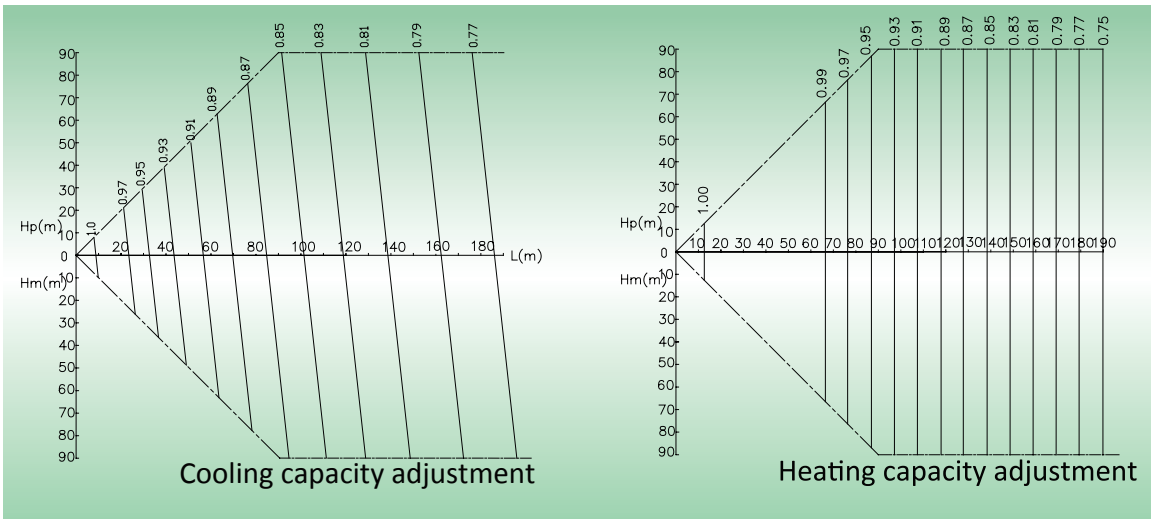
L: One-way equivalent tubing length, that is length of tube.

The graph below is the change for combination of 100% (Setting 16 °C at cooling and 30°C at heating)

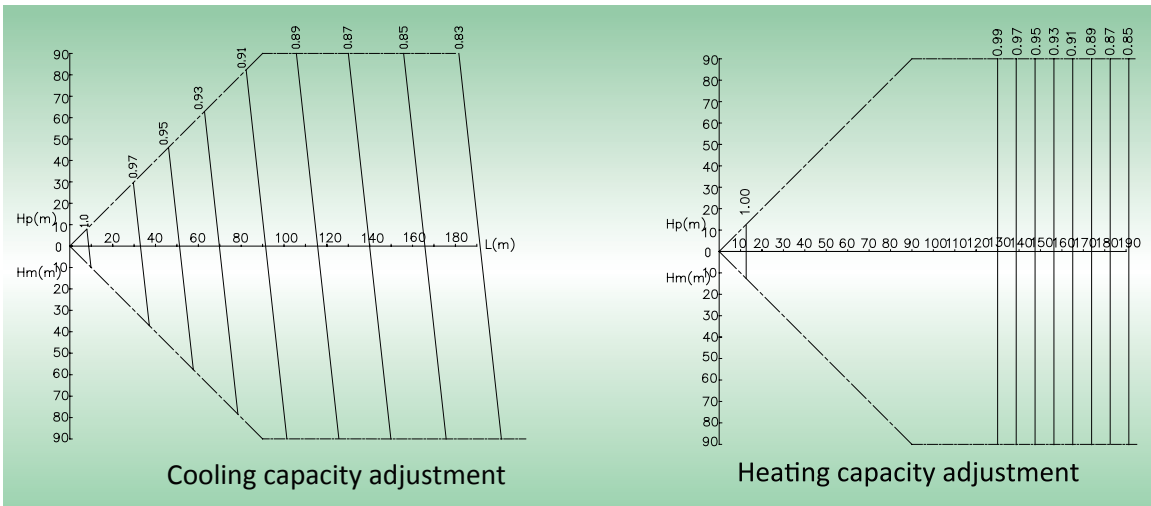
GMV-W224WM/A-X & GMV-W224WM/A-F:



GMV-W280WM/A-X & GMV-W280WM/A-F:



GMV-W335WM/A-X & GMV-W335WM/A-F:



## Notes for correction of the long connection pipe:

a. The above connection of long connection pipe indicates the maximum capacity under the standard indoor unit capacity configuration.

b. Set out below are some load configurations:

Maximum system capacity: the smaller one of the indoor unit capacity and the maximum outdoor unit capacity (two algorithms are provided below)

◆ When the configuration ratio of indoor unit is less than 100%

Maximum outdoor unit capacity = Capacity when the configuration ratio is 100% in the outdoor unit capacity correction table × Long connection pipe correction coefficient of the longest indoor unit distance

◆ When the configuration ratio of indoor unit reaches 100%

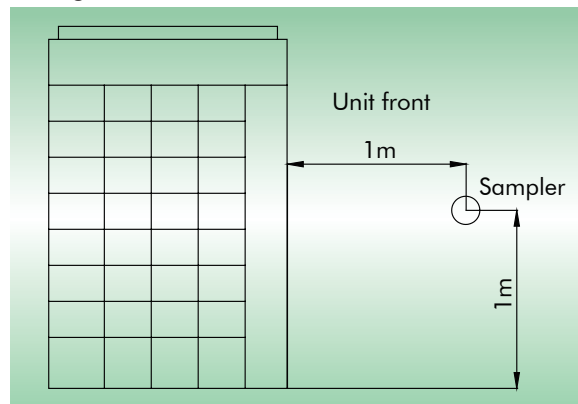
Maximum outdoor unit capacity = Capacity of the corresponding configuration ratio in the outdoor unit capacity correction table × Long connection pipe correction coefficient of the longest indoor unit distance

## 8 UNIT NOISE CURVES

Noise test method:

Test environment: semi-anechoic room; the noise level will be slightly higher due to change of the environment during actual operation.

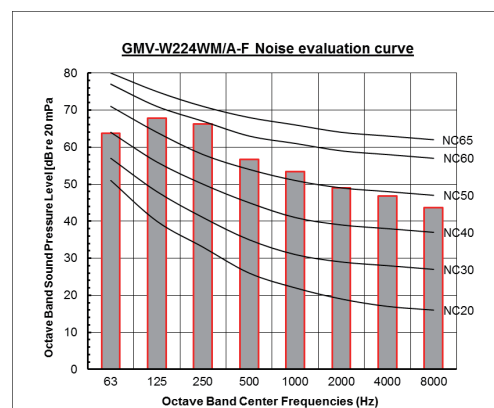
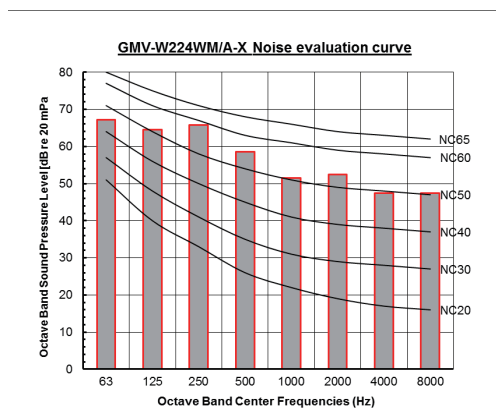
The test points of the following noise curves are shown below:

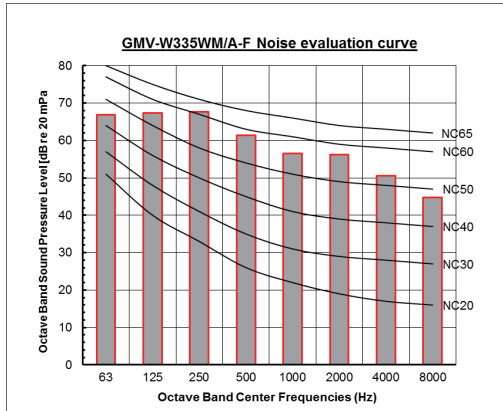
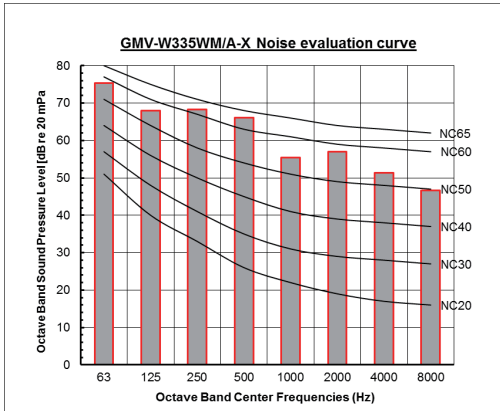
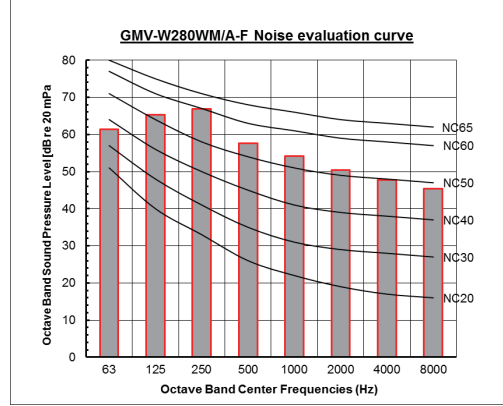
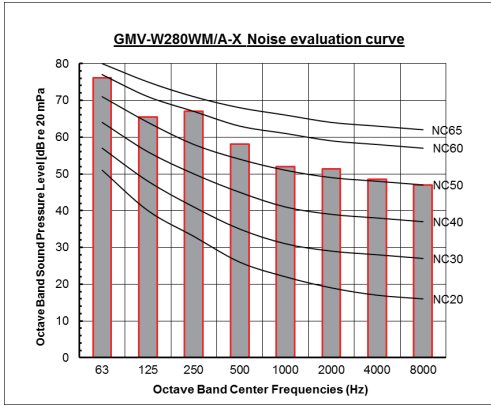


### NOTES:

a. Sound pressure level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.

b. The noise level is measured under the standard test condition.

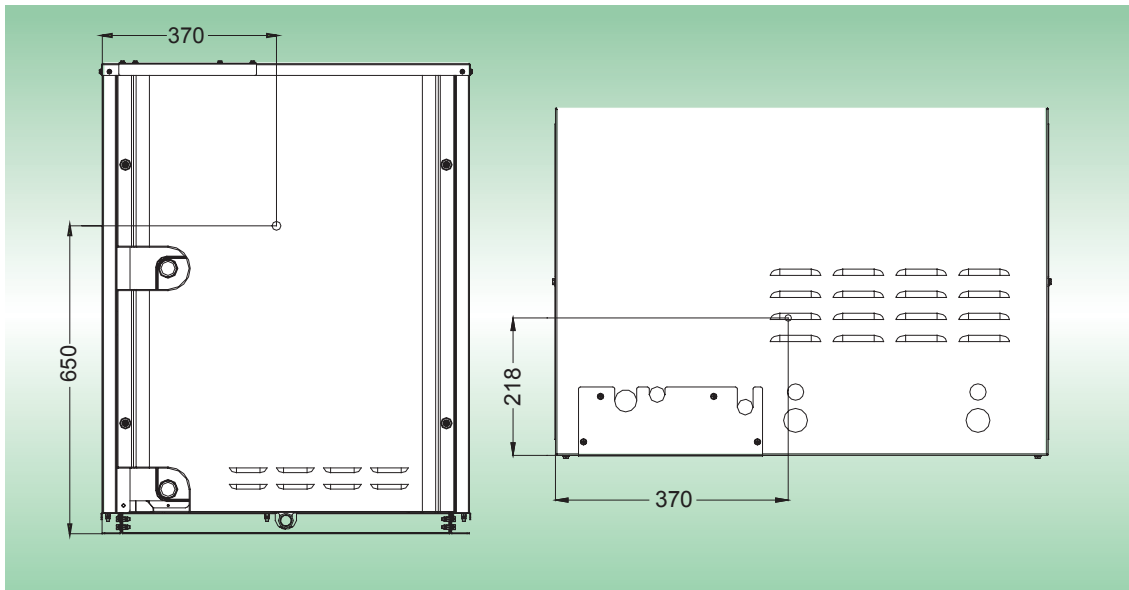




## 9 UNIT GRAVITY CENTER DIAGRAMS

Unit: mm

GMV-W224WM/A-X、GMV-W280WM/A-X and GMV-W335WM/A-X  
 GMV-W224WM/A-F、GMV-W280WM/A-F and GMV-W335WM/A-F



## 10 UNIT INSTALLATION SPACE REQUIREMENTS

### ➔ 10.1 Selection of outdoor unit installation site

VRF units are used in a lot of situations and serve wider users. If the unit is installed in a living environment, the cooling, heating and noise requirements will be higher, especially for the aged and infants. Therefore, the indoor/outdoor unit model with sufficient capacity and low noise should be preferred during model selection. It is not advisable to install the outdoor unit outside the bedroom, study room, or meeting room. For the commercial site, it is improper to install the outdoor unit near the office.

#### 1 Installation base of unit

It must be concrete or steel structure that can bear the operating weight of unit, and can insulate the sound and vibration, furthermore, the plane is flat.

#### 2 Location and environment of unit

The unit must be installed indoors (in machine room); when it is installed in a small room, prevent the leaking refrigerant should not exceed the limited safe concentration. For specific installing measures please consult the dealer.

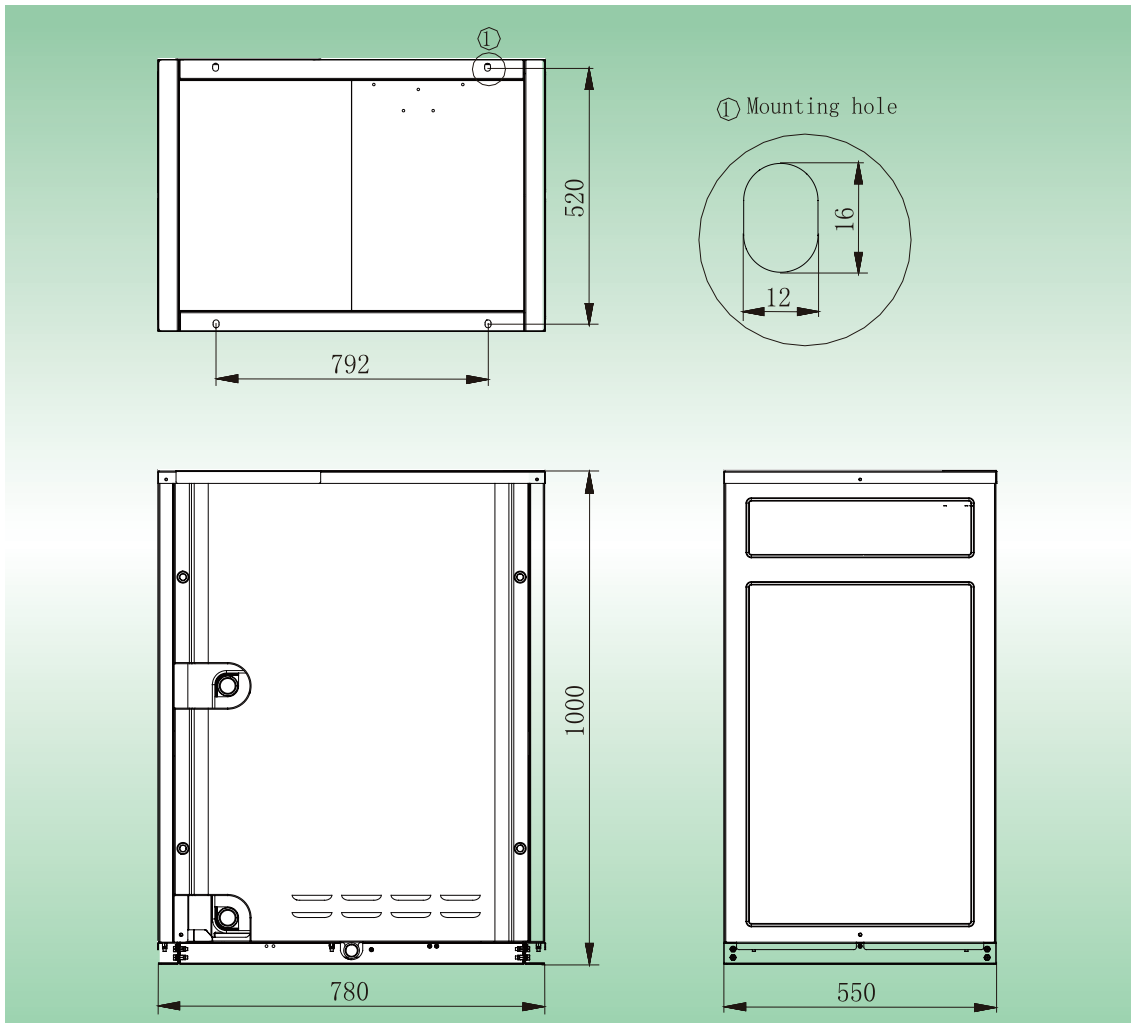
The air flow and loophole of unit should be in the position where can ensure heat elimination of air conditioner, surrounding temperature of outdoor unit should be within 2~40℃, and humidity should not be over 80%.

The unit should be installed in the place where may have fire hazard due to leakage of inflammable gas.

## ➔ 10.2 External dimensions and mounting hole dimensions of the outdoor unit

Unit: mm

External and installation dimensions:





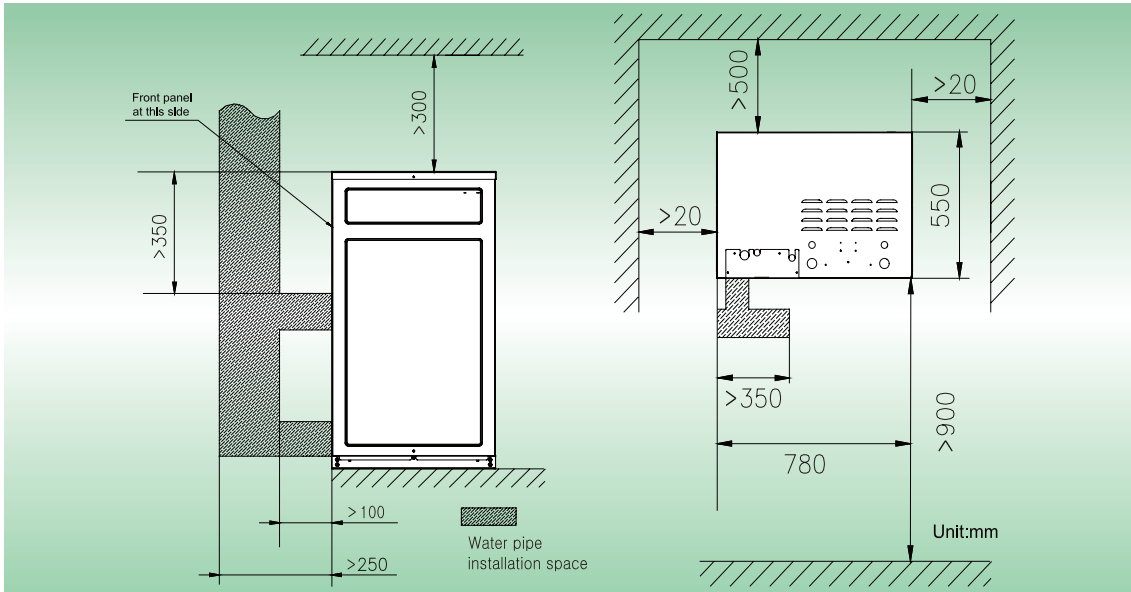
### ➔ 10.3 External unit installation space requirements

Unit: mm

1) If all sides of the outdoor unit (including the top) are surrounded by walls, process according to the following requirements for installation space:

Installation space requirements for the single-module unit

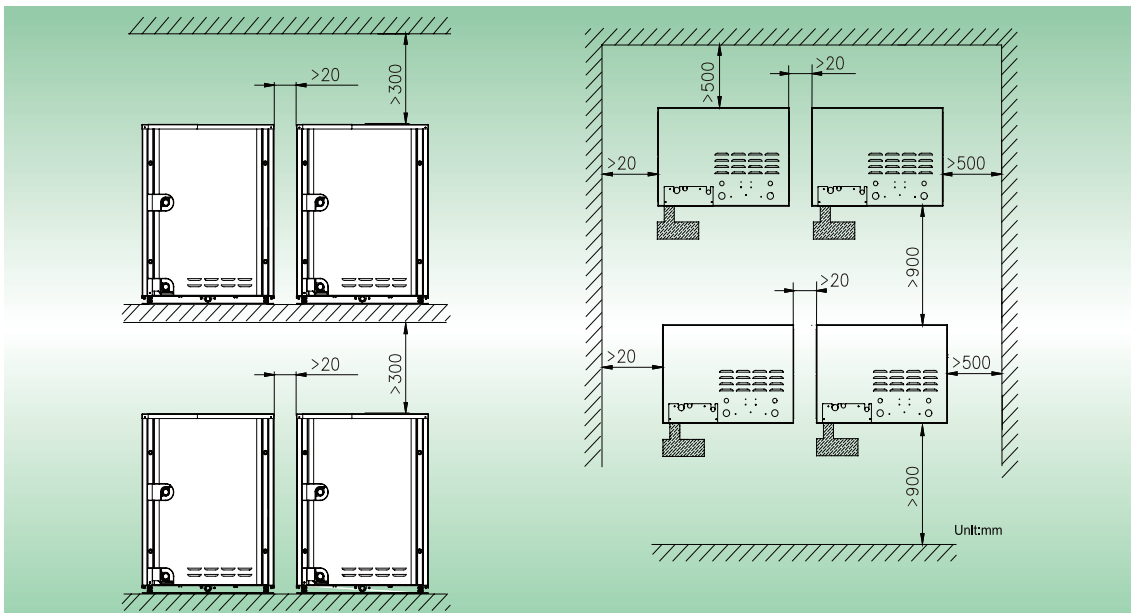
For easy maintenance, at least one of the left side or right side of ODU should be over 500 mm away from the barrier so that maintenance person can access the rear part of the unit.



Installation space requirements for multi-modular unit

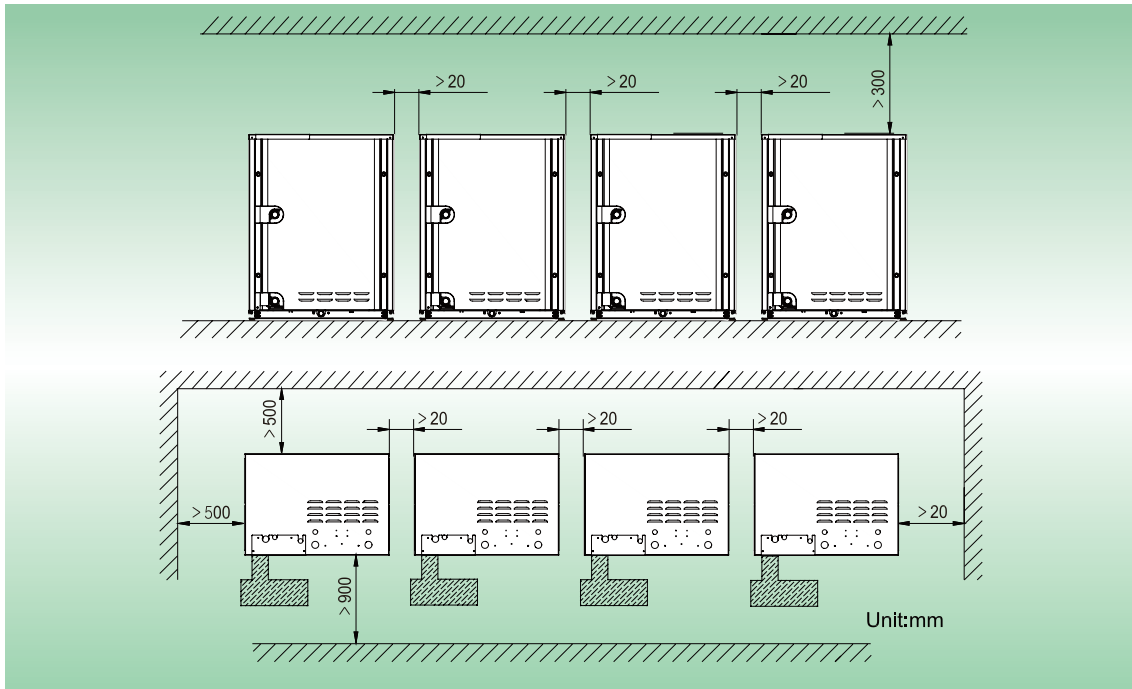
Solution 1: vertical overlapping

For convenient maintenance, at least one of the left side and right side of ODU should be over 500 mm away from the barrier so that the maintenance personnel can access the rear part of the unit. For installation of 2 modular units and 3 modular units, please refer to the following diagram. At most, 4 modular units can be achieved through combination.



### Solution 2: parallel arrangement

For convenient maintenance, at least one of the left side and right side of ODU should be over 500 mm away from the barrier. For installation of 2 modular units and 3 modular units, please refer to the following diagram. At most, 4 modular units can be achieved by combination.

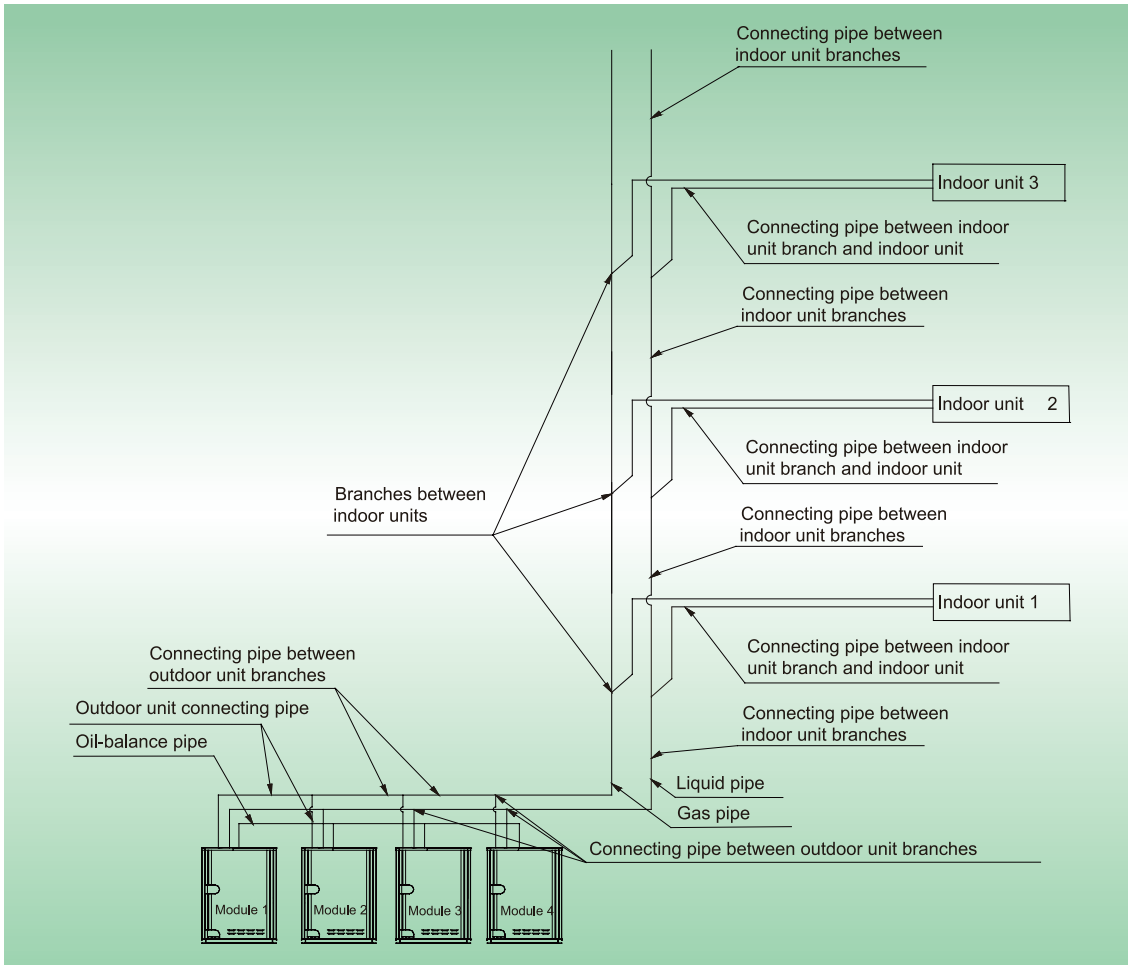


### Installation requirement for water source multi-VRF outdoor unit

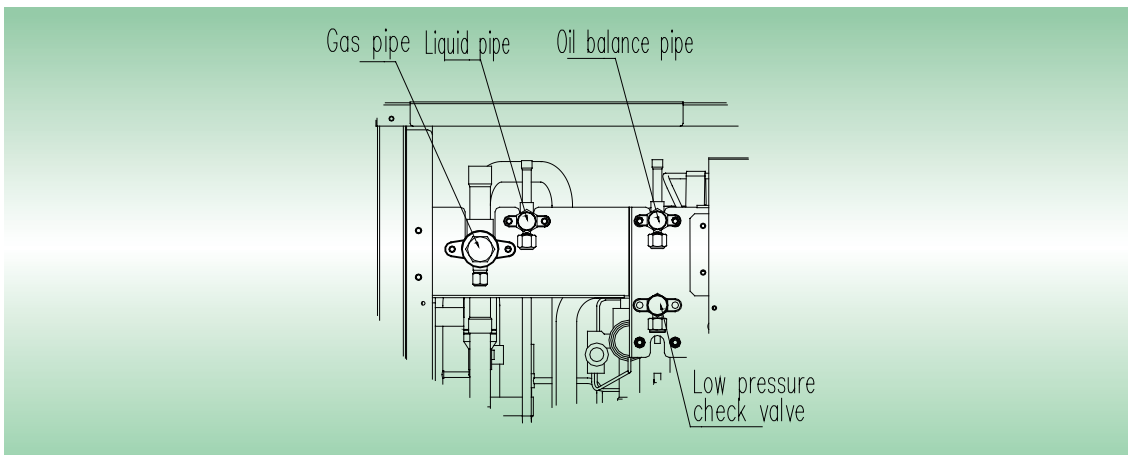
- (1) The outdoor unit should not be installed outdoors, please install the outdoor unit in workshop or indoor location.
- (2) Water pipe pressure-resistance value of outdoor unit is 1.96Mpa;
- (3) The outdoor unit is designed to be installed indoors, please pay attention to the waterproof protection of outdoor unit;
- (4) The water pipe made of non-stainless steel may cause corrosion of water pipe, thus the connecting pipe of water system should use stainless steel connecting pipe;
- (5) The air discharge valve should be installed in the water system for prevention of air bubble;
- (6) Y-shape filter should be installed inside the inlet water pipe within 1.5m of outdoor unit to prevent impurities from entering into the circulating water system and heat exchanger;
- (7) Do not directly connect the drain outlet to the water outlet;
- (8) After finishing connecting the water pipe, please make sure that the waterflow is smooth without blockage;
- (9) Heat insulation of water system should be installed to the water pipe connecting root of outdoor unit;
- (10) Take anti-frosting measures for water pipe system if it is frosted due to low temperature of water, such as adding anti-freeze fluid;
- (11) Install one valve in the position that can be easily operated, which is for washing water pipe with detergent.

# 11 MODEL SELECTION FOR UNIT PIPING

## 11.1 Schematic Diagram of Piping Connection



## 11.2 Piping sequence diagram





(1) Normally, the pipe length from the first branch of IDU to the farthest IDU is 40m. When those three conditions as below are satisfied, the length can reached 90m.

- ① Actual length of pipe in total:  $L1+L2x2+L3x2+L4x2+\dots+L9x2+a+b+\dots+i+j\leq 300m$ ;
- ② Length between each IDU and its nearest branch a, b, c, d, e, f, g, h, i,  $j\leq 40m$ ;
- ③ Difference between the pipe length from the first branch of IDU to the farthest IDU and the pipe length from the first branch of IDU to the nearest IDU:  $L10-L11\leq 40m$ .

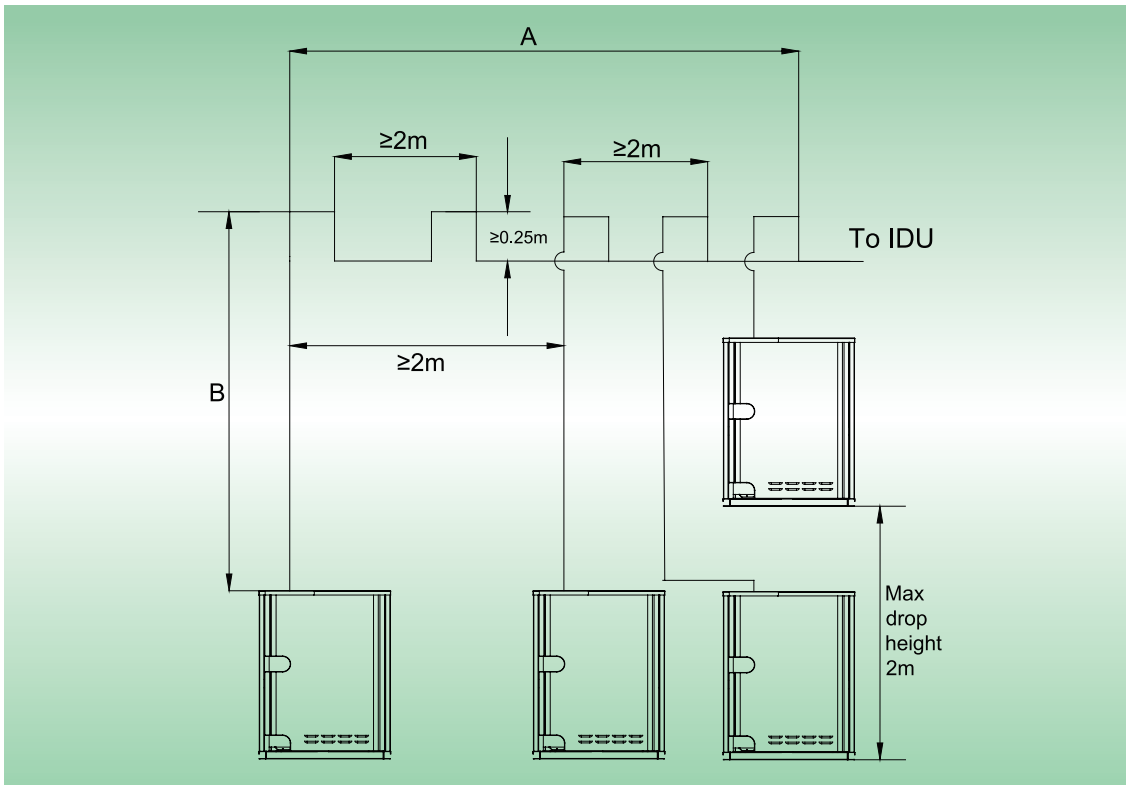
(2) When the maximum length of the main pipe from ODU to the first branch of IDU is  $\geq 80m$ , then adjust the pipe size of the gas pipe and liquid pipe of main pipe according to the following table.

Model of ODU	Gas pipe Diameter (mm)	Liquid pipe diameter (mm)	Model of ODU	Gas pipe Diameter (mm)	Liquid pipe diameter (mm)
GMV-W224WM/A-X GMV-W224WM/A-F	No change	No change	GMV-W840WM/A-X GMV-W840WM/A-F	Φ 38.1	Φ 22.2
GMV-W280WM/A-X GMV-W280WM/A-F	No change	Φ 12.7	GMV-W895WM/A-X GMV-W895WM/A-F	Φ 38.1	Φ 22.2
GMV-W335WM/A-X GMV-W335WM/A-F	Φ 28.6	Φ 15.9	GMV-W950WM/A-X GMV-W950WM/A-F	Φ 38.1	Φ 22.2
GMV-W448WM/A-X GMV-W448WM/A-F	Φ 31.8	Φ 15.9	GMV-W1005WM/A-X GMV-W1005WM/A-F	Φ 41.3	Φ 22.2
GMV-W504WM/A-X GMV-W504WM/A-F	Φ 31.8	Φ 19.05	GMV-W1064WM/A-X GMV-W1064WM/A-F	Φ 41.3	Φ 22.2
GMV-W560WM/A-X GMV-W560WM/A-F	Φ 31.8	Φ 19.05	GMV-W1120WM/A-X GMV-W1120WM/A-F	Φ 41.3	Φ 22.2
GMV-W615WM/A-X GMV-W615WM/A-F	Φ 31.8	Φ 19.05	GMV-W1175WM/A-X GMV-W1175WM/A-F	Φ 41.3	Φ 22.2
GMV-W670WM/A-X GMV-W670WM/A-F	Φ 31.8	Φ 19.05	GMV-W1230WM/A-X GMV-W1230WM/A-F	Φ 41.3	Φ 22.2
GMV-W728WM/A-X GMV-W728WM/A-F	Φ 38.1	Φ 22.2	GMV-W1285WM/A-X GMV-W1285WM/A-F	Φ 41.3	Φ 22.2
GMV-W784WM/A-X GMV-W784WM/A-F	Φ 38.1	Φ 22.2	GMV-W1340WM/A-X GMV-W1340WM/A-F	Φ 41.3	Φ 22.2

(3) If the length between an IDU and its nearest branch is above 10m, then increase the size of the liquid pipe of IDU (only for the pipe size that is  $\leq 6.35mm$ ).

(4) If the drop height difference between IDU and ODU exceeds the limit value, please consult the manufacturer for specific technical requirements.

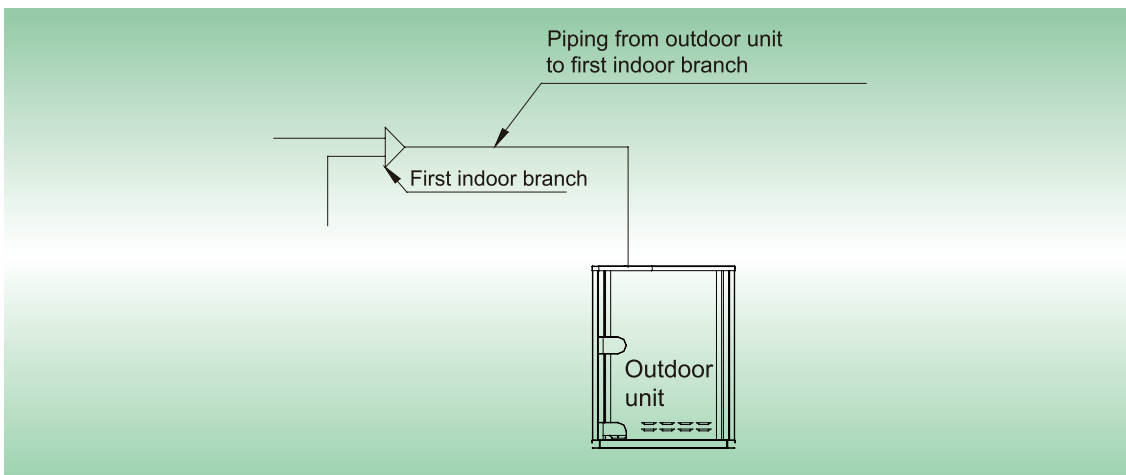
## ➔ 11.4 Connection Pipe among Outdoor Modules



The pipeline between outdoor units should be installed as follows:  
 When the distance between ODU exceeds 2m, U-type oil trap should be added at low-pressure gas pipe.  $A+B \leq 10\text{m}$ .

## ➔ 11.5 Diameters of piping (main pipe) from ODU to the first indoor branch

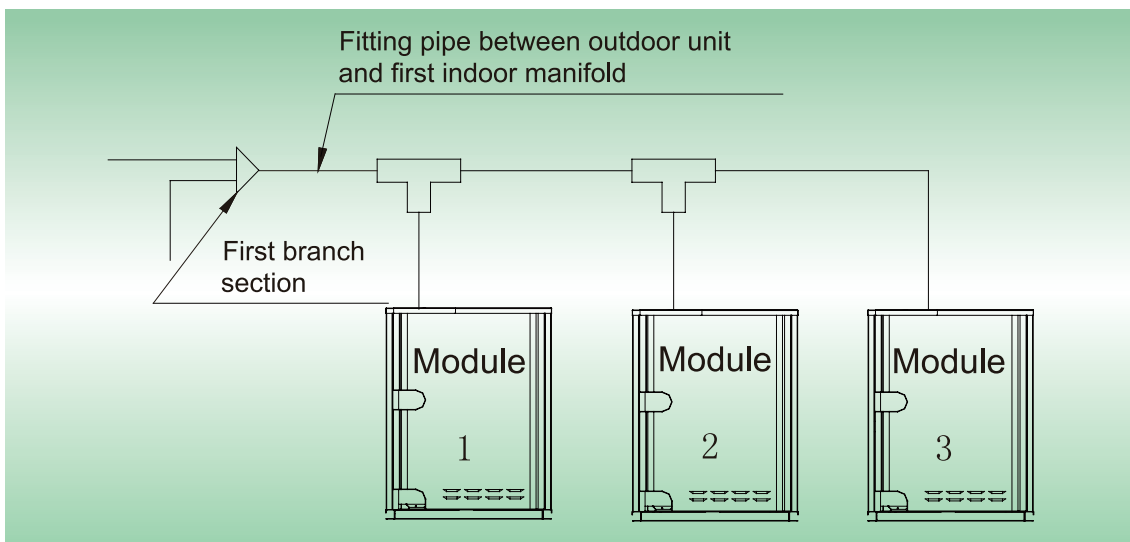
1. If the system is a single modular system, the diameter of the pipe from the ODU to the first indoor branch should be selected according to the connecting pipe diameter of the ODU.



The table below provides the connecting pipe diameters for basic ODU modules:

Basic module	Piping from ODU to the first indoor branch	
	Gas pipe (mm)	Liquid pipe (mm)
GMV-W224WM/A-X	Φ 22.2	Φ 9.52
GMV-W280WM/A-X	Φ 22.2	Φ 9.52
GMV-W335WM/A-X	Φ 25.4	Φ 12.7
GMV-W224WM/A-F	Φ 22.2	Φ 9.52
GMV-W280WM/A-F	Φ 22.2	Φ 9.52
GMV-W335WM/A-F	Φ 25.4	Φ 12.7

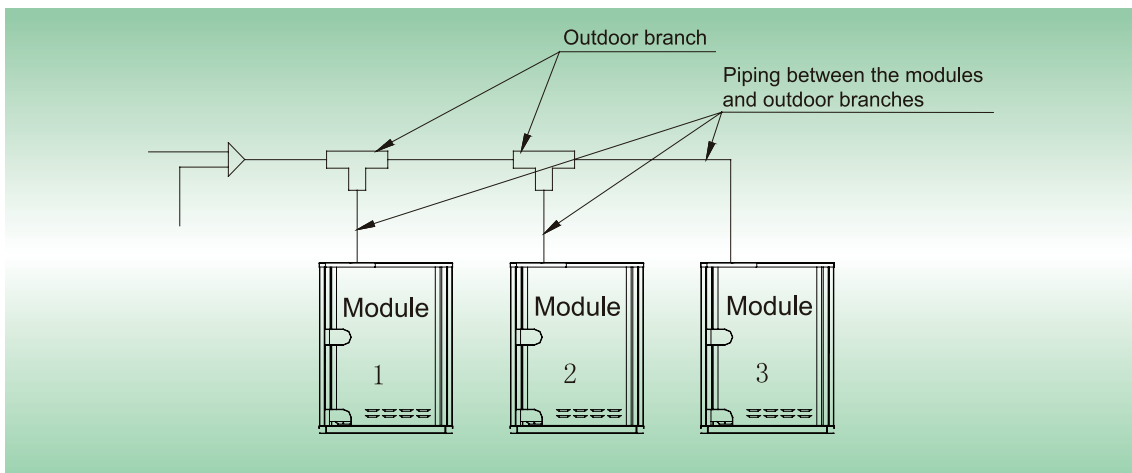
For multiple modules, the piping from ODU to the first branch of IDU is based on the total rated capacity of outdoor modules.



Total rated capacity of outdoor modules (multi-modular system)	Pipe between ODU and the first branch of IDU	
	Gas Pipe(mm)	Liquid Pipe(mm)
GMV-W448WM/A-X GMV-W448WM/A-F	Φ 28.6	Φ 12.7
GMV-W504WM/A-X GMV-W504WM/A-F	Φ 28.6	Φ 15.9
GMV-W560WM/A-X GMV-W560WM/A-F	Φ 28.6	Φ 15.9
GMV-W615WM/A-X GMV-W615WM/A-F	Φ 28.6	Φ 15.9
GMV-W670WM/A-X GMV-W670WM/A-F	Φ 28.6	Φ 15.9
GMV-W728WM/A-X GMV-W728WM/A-F	Φ 31.8	Φ 19.05
GMV-W784WM/A-X GMV-W784WM/A-F	Φ 31.8	Φ 19.05
GMV-W840WM/A-X GMV-W840WM/A-F	Φ 31.8	Φ 19.05
GMV-W895WM/A-X GMV-W895WM/A-F	Φ 31.8	Φ 19.05
GMV-W950WM/A-X GMV-W950WM/A-F	Φ 31.8	Φ 19.05
GMV-W1005WM/A-X GMV-W1005WM/A-F	Φ 38.1	Φ 19.05

GMV-W1064WM/A-X GMV-W1064WM/A-F	Φ 38.1	Φ 19.05
GMV-W1120WM/A-X GMV-W1120WM/A-F	Φ 38.1	Φ 19.05
GMV-W1175WM/A-X GMV-W1175WM/A-F	Φ 38.1	Φ 19.05
GMV-W1230WM/A-X GMV-W1230WM/A-F	Φ 38.1	Φ 19.05
GMV-W1285WM/A-X GMV-W1285WM/A-F	Φ 38.1	Φ 19.05
GMV-W1340WM/A-X GMV-W1340WM/A-F	Φ 38.1	Φ 19.05

2. If the system is multi-modular, the diameter of the pipe from each module to the branch between ODU should be selected according to the connecting pipe diameter for the ODU of basic module. The connecting pipe diameters for ODU of basic module are provided as below:



Basic module	Piping between the modules and outdoor branches	
	Gas pipe (mm)	Liquid pipe (mm)
GMV-W224WM/A-X	Φ 22.2	Φ 9.52
GMV-W280WM/A-X	Φ 22.2	Φ 9.52
GMV-W335WM/A-X	Φ 25.4	Φ 12.7
GMV-W224WM/A-F	Φ 22.2	Φ 9.52
GMV-W280WM/A-F	Φ 22.2	Φ 9.52
GMV-W335WM/A-F	Φ 25.4	Φ 12.7

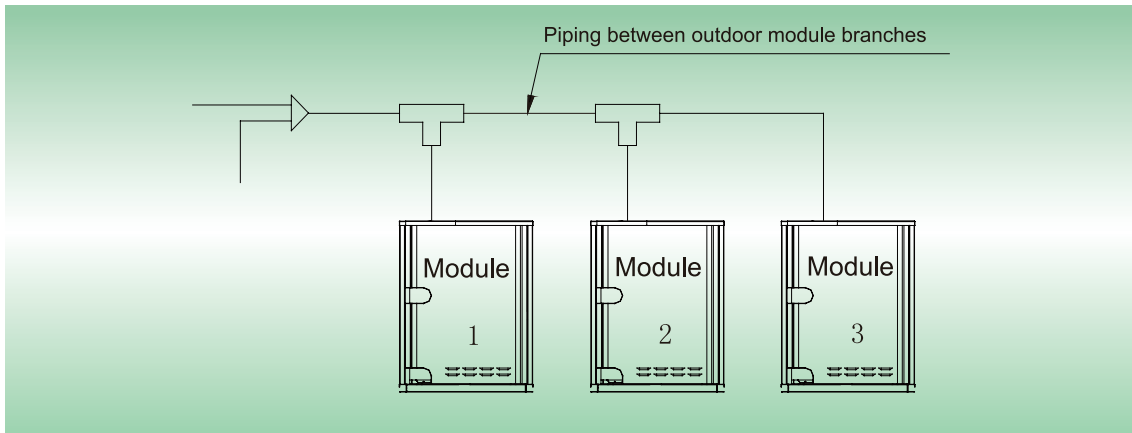
Selection of the branch between outdoor modules:

	Module capacity (C)	Model
Branch between outdoor modules	$504 \leq C$	FQ01B/A, FQ02/A, FQ03/A, FQ04/A

3. Diameters of connecting pipes between basic module branches

The diameters of connecting pipes between basic module branches depend on the total rated capacity of the upstream module.

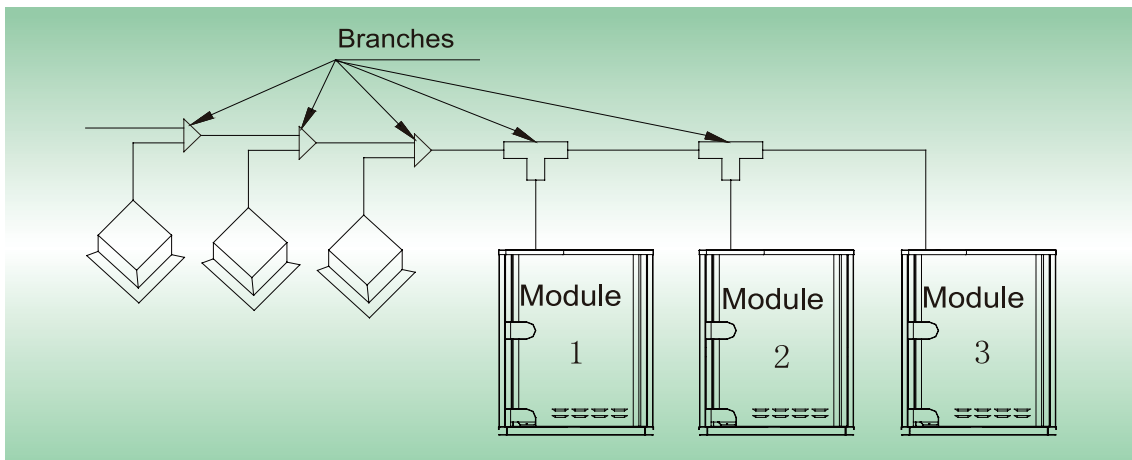




Total rated capacity Q (kW) of the upstream module	Diameters of connecting pipes between module branches	
	Gas pipe (mm)	Liquid pipe (mm)
$Q < 22.4$	$\Phi 19.05$	$\Phi 9.52$
$22.4 \leq Q < 28.0$	$\Phi 22.2$	$\Phi 9.52$
$28.0 \leq Q < 40.0$	$\Phi 25.4$	$\Phi 12.7$
$40.0 \leq Q < 45.0$	$\Phi 28.6$	$\Phi 12.7$
$45.0 \leq Q < 68.0$	$\Phi 28.6$	$\Phi 15.9$
$68.0 \leq Q < 96.0$	$\Phi 31.8$	$\Phi 19.05$
$96.0 \leq Q$	$\Phi 38.1$	$\Phi 19.05$

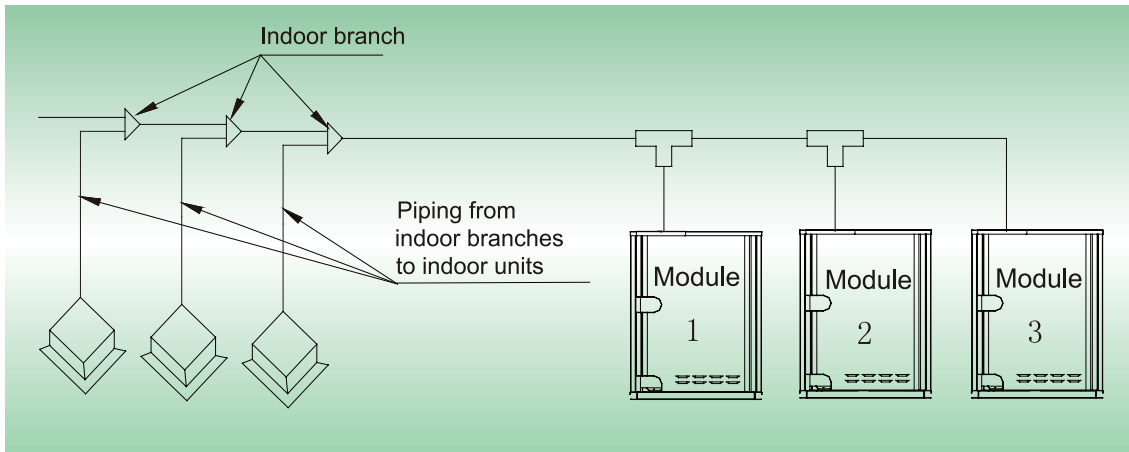
#### 4. Branches selection for IDUs and ODU

Branches between IDUs and branches between ODUs should be selected according to the total capacity of the downstream and based on the following table.



Model	Total rated capacity X(kW) of the downstream	Appearance	
		Gas pipe	Liquid pipe
FQ01A	$X \leq 20.0$		
FQ01B	$20.0 < X \leq 30.0$		





Rated capacity C (kW) of IDU	Gas pipe (mm)	Liquid pipe (mm)
$C \leq 2.8$	$\Phi 9.52$	$\Phi 6.35$
$2.8 < C \leq 5.0$	$\Phi 12.7$	$\Phi 6.35$
$5.0 < C \leq 14.2$	$\Phi 15.9$	$\Phi 9.52$
$14.2 < C \leq 22.4$	$\Phi 19.05$	$\Phi 9.52$
$22.4 < C \leq 28.0$	$\Phi 22.2$	$\Phi 9.52$

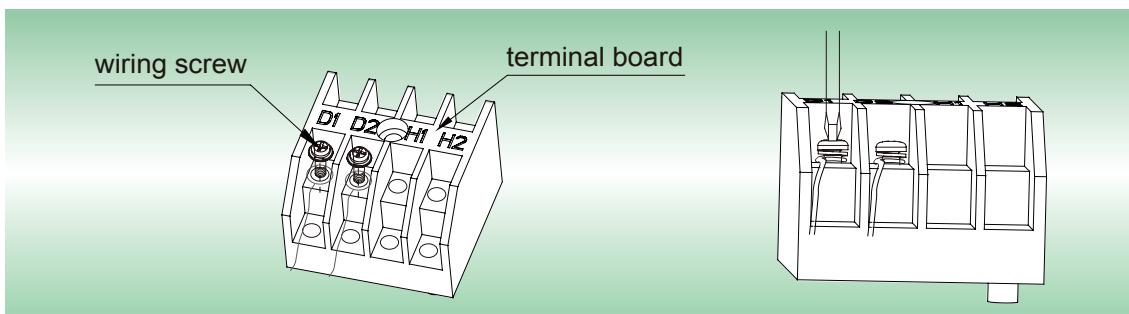
## 12 REQUIREMENTS FOR COMMUNICATION MODE

### ➔ 12.1 Connection Mode of Connection Line Terminals

The CAN communication network is adopted for GMV water VRF system. Manual DIP or identification on polarities of the communication power is not required for the IDU. Only the function DIP needs to be set for the ODU. For details, see the description on function setting of the ODU

#### 1 Connection Mode of Connection Line Terminals

All the communication connections of GMV water are in the screw fastening mode.

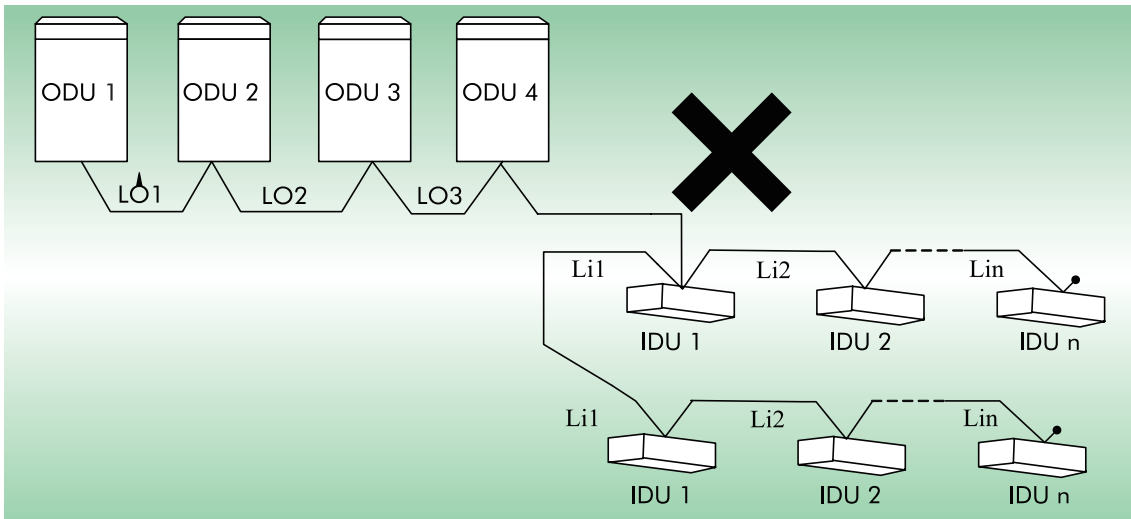


#### 2 Communication Cable Material and Wring Mode

##### (1) Communication Material

Module selection for the communication cables of outdoor unit and indoor unit.

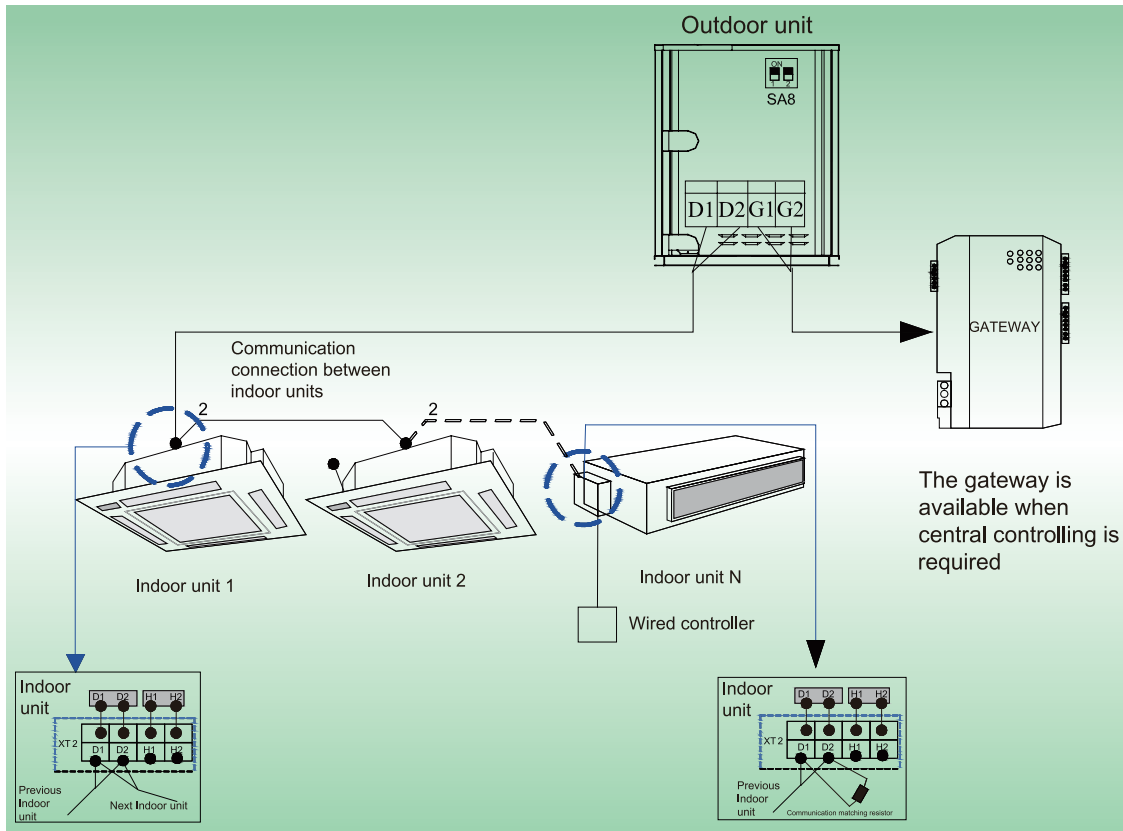




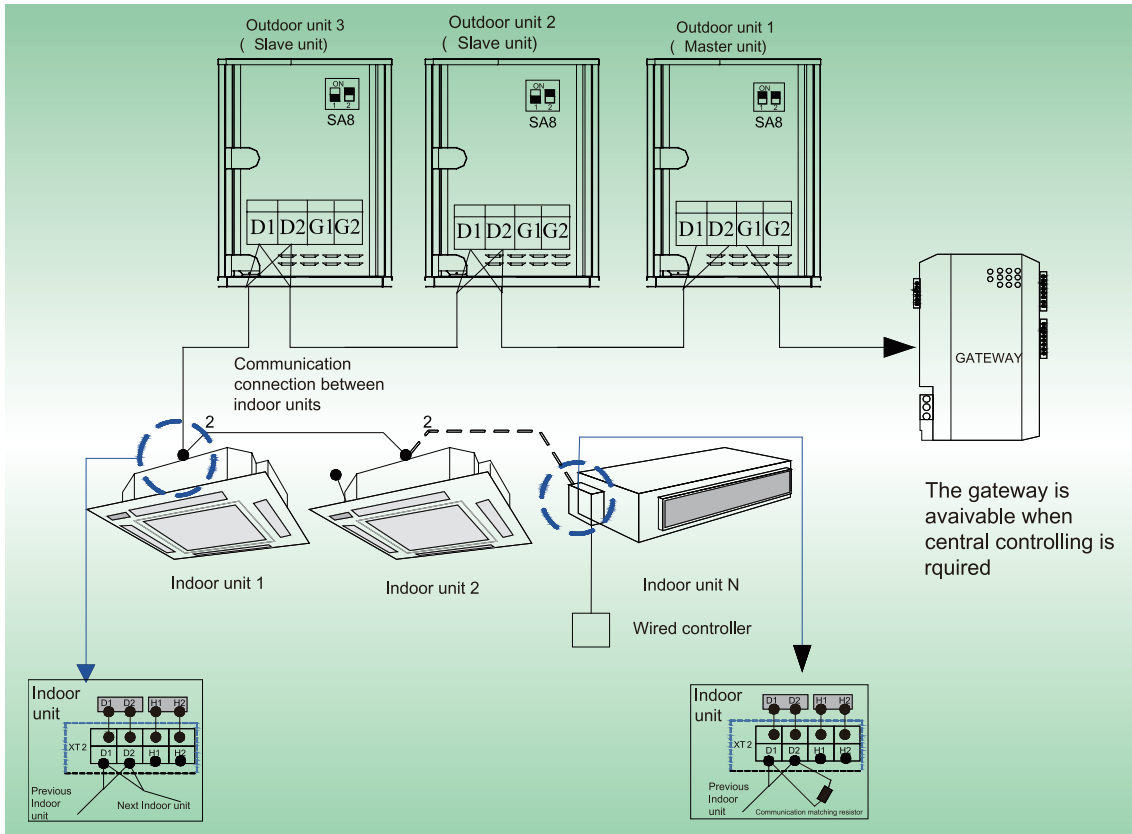
### 3 Connection Method and Procedure of Communication Cable

#### A. Communication connection between the indoor unit and outdoor unit

The indoor unit is connected to the outdoor unit through the D1/D2 port of the terminal plate XT2. The figures below show the connection method of the single outdoor unit and connection method of the modular outdoor unit.



Communication connection mode of the multi-module system.

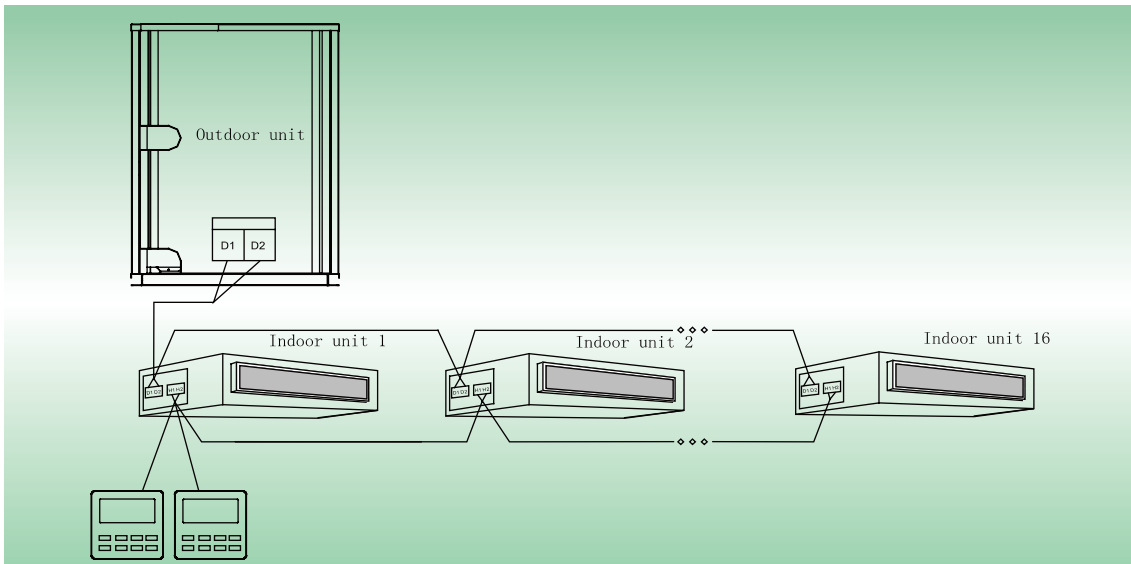
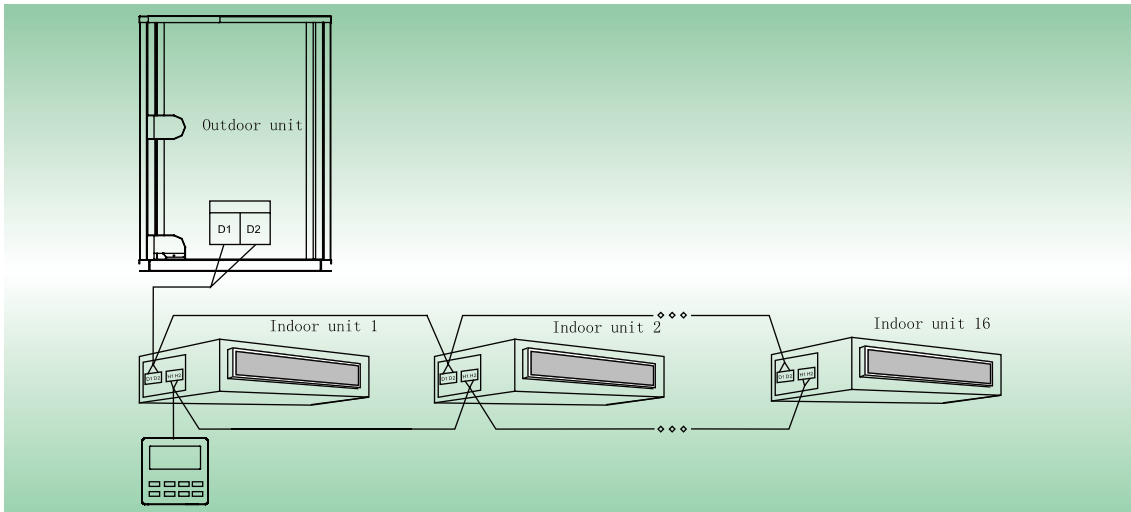
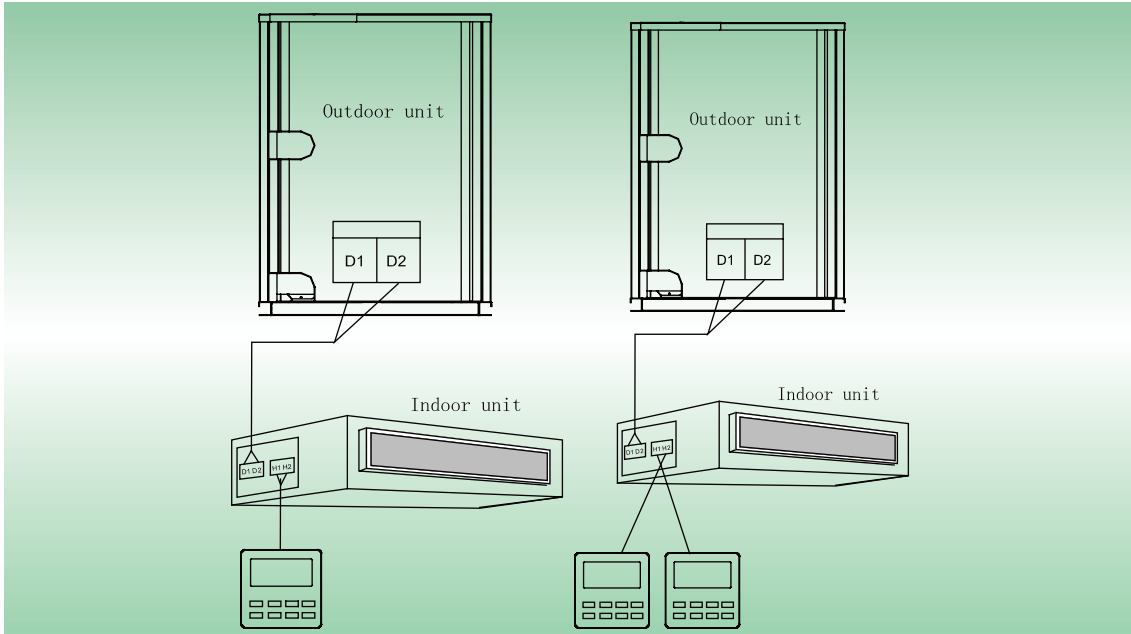


**NOTES:**

- a. For the modular outdoor unit, if multiple outdoor unit modules are available, the master unit must be the first outdoor unit module on the communication line and cannot be connected to any indoor unit (the master unit is set by SA8 of the main board for outdoor unit).
- b. For the modular outdoor unit, if multiple outdoor unit modules are available, the indoor unit must be connected to the last slave module of outdoor unit (the slave unit is set by SA8 of the main board for outdoor unit).
- c. The communication cable must be wired separately from the power cable to avoid interference.
- d. A proper length of communication cable must be selected, and no joint is allowed.
- e. The indoor units must be connected in series, and the last indoor unit must be connected to a communication matching resistor (which is provided in the list of outdoor unit accessories).

**B. Communication connection mode between the indoor unit and wired controller**

The indoor unit and the wired controller are connected in one of the following four modes, which are respectively shown in Figure 7 below:



When two wired controllers control multiple indoor units at the same time, the wired controller can be connected to any indoor unit, the connected indoor units must belong to the same series, and only one wired controller must be set to a slave wired controller. The number of indoor units controlled by the wired controllers is not more than 16, and the connected indoor units must be on the same indoor unit network.

The slave wired controller can be set in the power-on or power-off status:

- (1) Press and hold the "FUNCTION" button on the wired controller to be set to a slave wired controller for five seconds. The temperature area displays "C00". Continue holding the "FUNCTION" button for five seconds to enter the wired controller parameter setting interface. The temperature area displays "P00" by default.
- (2) Select a P13 parameter code by pressing "▲" or "▼". Press the "MODE" button to switch to parameter value settings. The parameter value blinks. Press "▲" or "▼" to select "02", and then press the "ENTER/CANCEL" button to complete settings.
- (3) Press the "ENTER/CANCEL" button to return to the upper-level menu till quitting parameter settings.

The user parameter setting list is as follows:

Parameter Code	Parameter Name	Parameter Range	Default Value	Remarks
P13	Wired controller address settings	01: master wired controller 02: slave wired controller	01	When two wired controllers simultaneously control one or more indoor units, the two wired controllers must use different addresses. The slave wired controller (address: 02) does not have the unit parameter setting function except its own address settings.



**NOTES:**

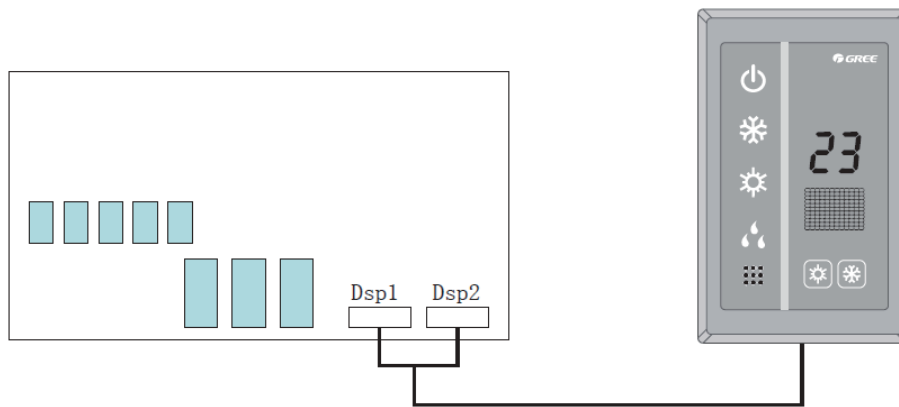
- a. The default factory setting of all the wired controllers is the master wired controller status.
- b. In the parameter setting status, the "FAN", "Timer", "SLEEP", and "SWING" buttons are invalid. By pressing "ON/OFF", you can return to the main interface but will not power on/off the unit.
- c. In the parameter setting status, signals of the remote controller are invalid.

**C. Connection mode between the air duct-type indoor unit and receiving LED panel**

When the air duct-type indoor unit needs to be connected to a remote receiving LED panel, they are connected through Dsp1 and Dsp2 of the main board for indoor unit:



Indoor Unit Type	Model of Remote Receiving LED Panel	Connection Wire Type	Main Board Interface of Corresponding Indoor Unit
Air duct-type indoor unit	JS05	Inter-board connecting line (17 cores)	Dsp1 (interconnected to the 8-core interface) Dsp2 (interconnected to the 9-core interface)



## NOTES:

- The wired controller and remote receiving LED panel can be used at the same time.
- Note to select a remote controller when a remote receiving LED panel is used.

## 13 ELECTRICAL CONNECTION

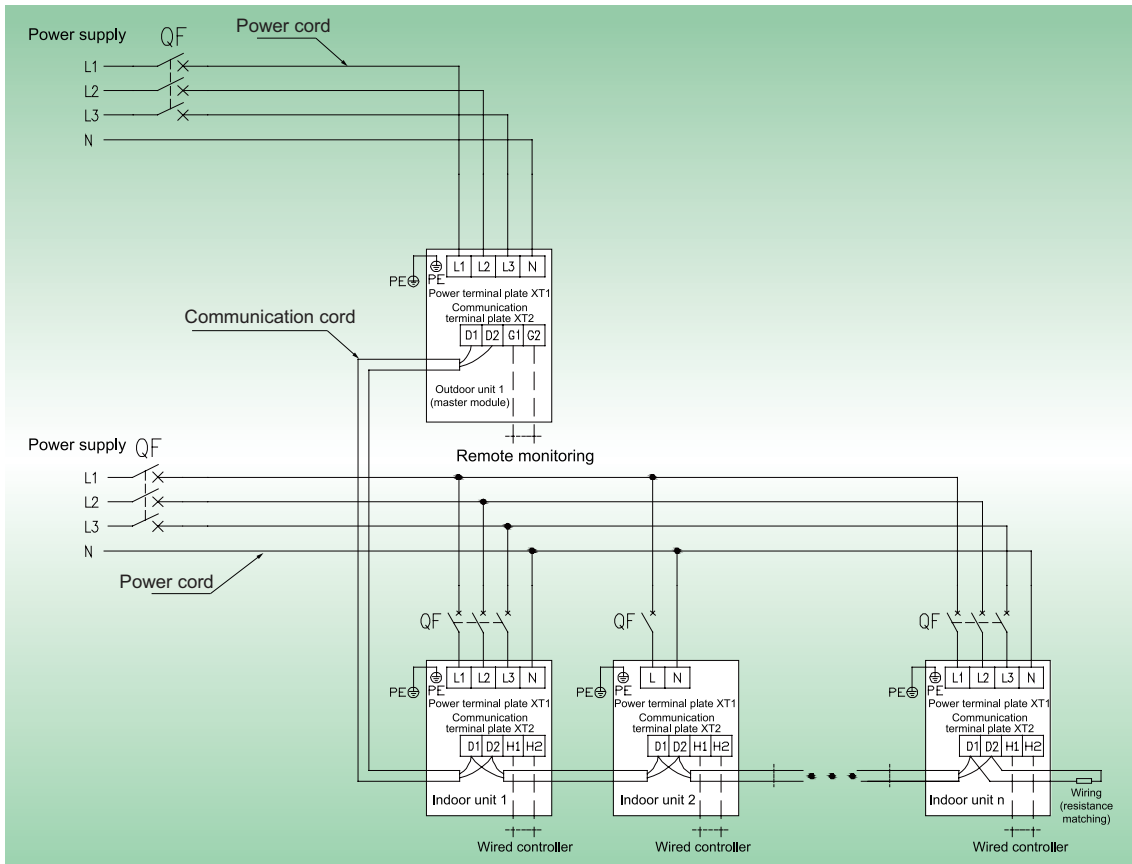
### 13.1 External Connection Interfaces

External connection interfaces	Power supply A-X Model	Quantity	5
		Label	L1 L2 L3 N PE
	Power supply A-F Model	Quantity	4
		Label	L1 L2 L3 PE
	Indoor/outdoor unit communication	Quantity	2
		Label	D1 D2
	Centralized control	Quantity	2
		Label	G1 G2

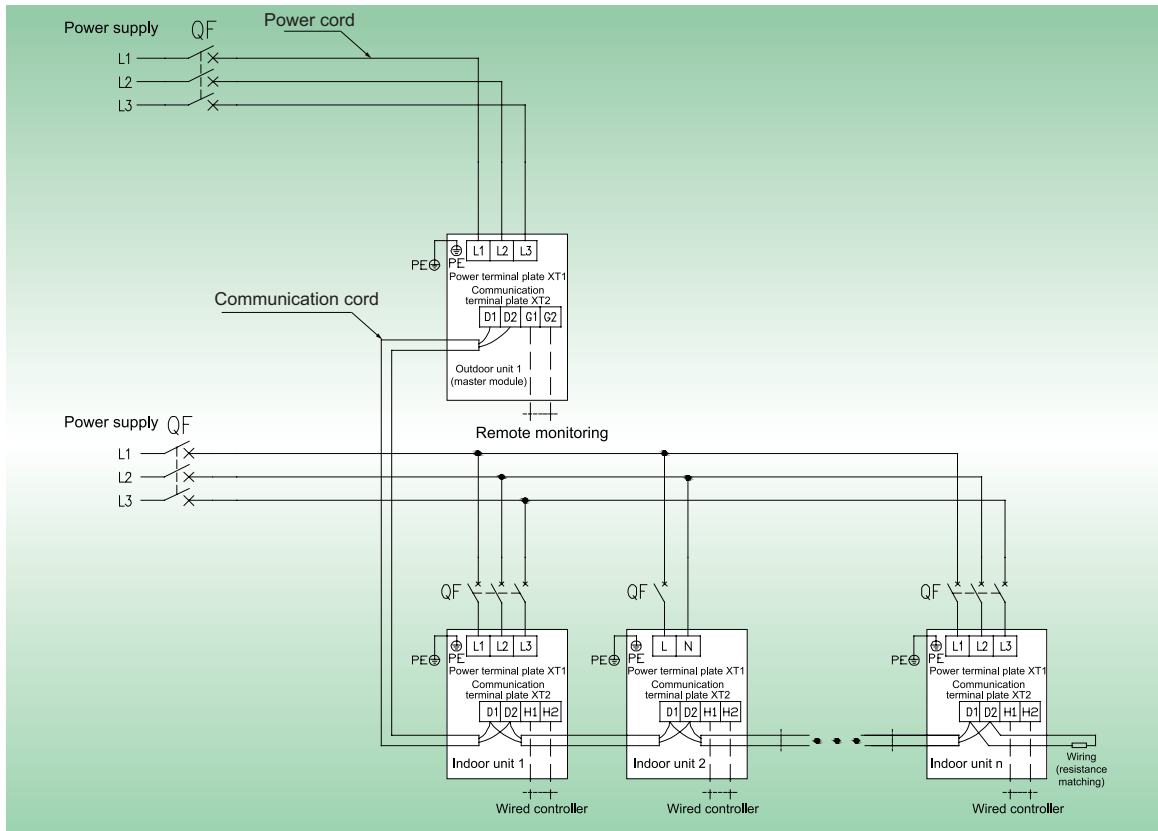
### 13.2 External Connection

Every unit must be configured with a circuit breaker to implement short circuit and abnormal overload protection. Besides, the indoor unit and outdoor unit should be respectively configured with a general circuit breaker, which is used to uniformly connect to or cut off the general power supply for the indoor unit or outdoor unit.

- External connection diagram of a single unit  
For A-X Models:



For A-F Models:

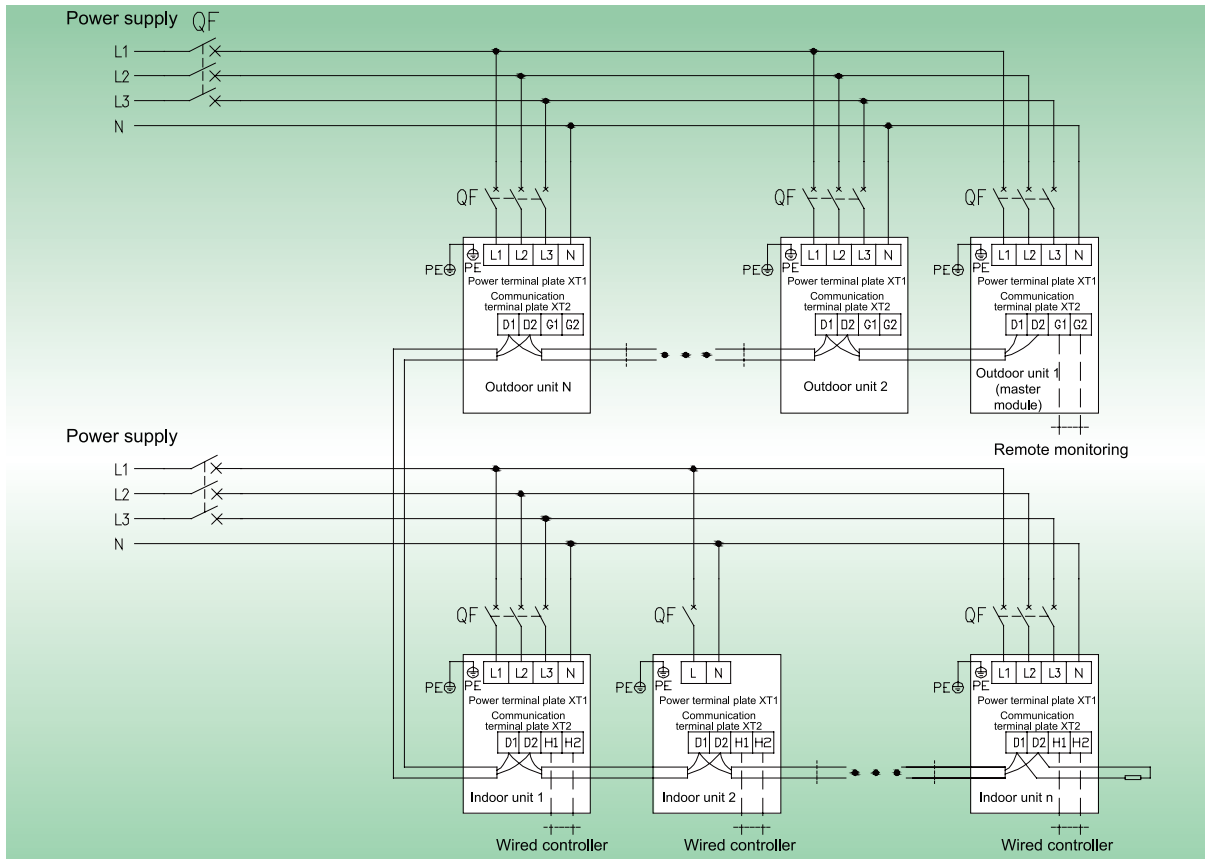


## NOTES:

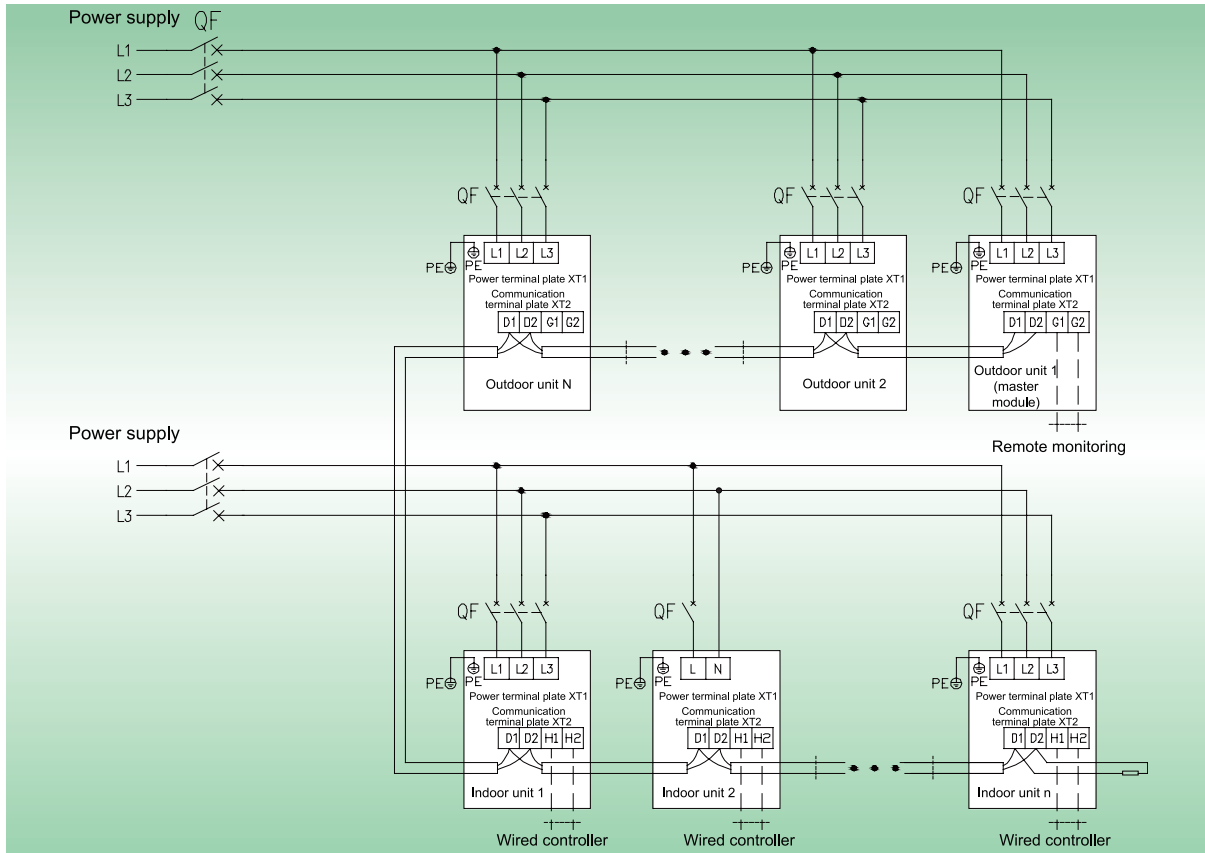
The maximum number of connected IDUs (n) is determined based on the capacity of the ODU. For details, see the description on unit capacity configuration.

2) External connection diagram of modular connection

For A-X Models:



For A-F Models:



**NOTES:**

The maximum number of connected IDUs (n) is determined based on the capacity of the ODU. For details, see the description on unit capacity configuration.

## 14 CALCULATION METHOD OF REFRIGERANT ADDED FOR ENGINEERING PIPING

Refrigerant needs to be charged for the pipeline installed onsite. Check the table below (apply the liquid pipe as a benchmark) for the refrigerant to be added when the pipeline length exceeds one meter each time. Charged refrigerant quantity =  $\sum$  Liquid pipe length  $\times$  Charged refrigerant quantity for each meter of liquid pipe + Additional charged refrigerant quantity

Liquid pipe diameter (mm)	Φ28.6	Φ25.4	Φ22.2	Φ19.05	Φ15.9	Φ12.7	Φ9.52	Φ6.35
kg/m	0.680	0.520	0.350	0.250	0.170	0.110	0.054	0.022

Additional charged refrigerant quantity

Total connecting pipe length L (m)	Additional charged refrigerant quantity (kg)
0 < L ≤ 30	0
30 < L ≤ 100	1
100 < L ≤ 200	2
L > 200	3

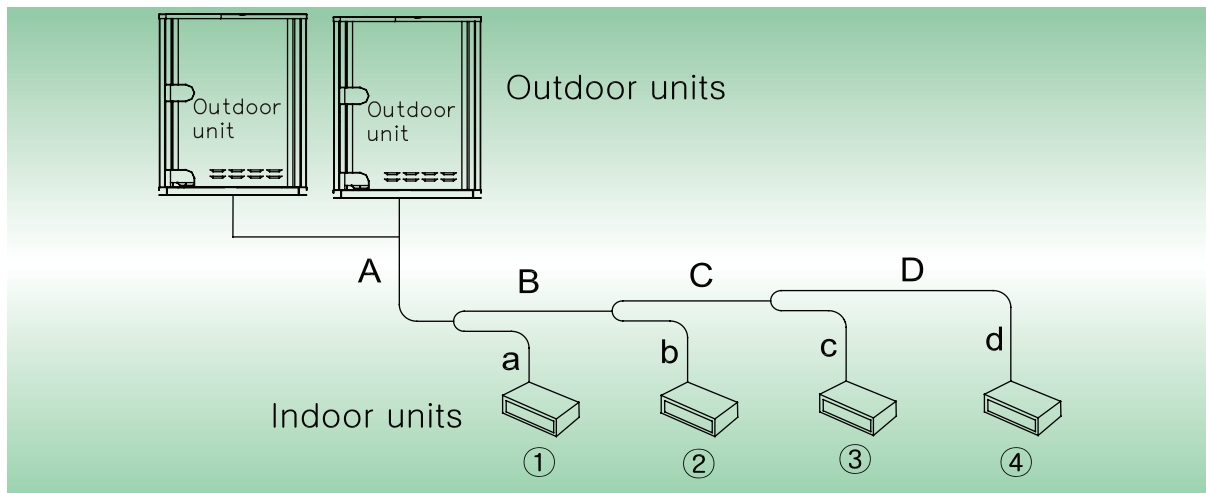
After confirmed no leakage in system and the compressor is stop. First fill the calculated quantity of

R410A refrigerant to the unit through the liquid pipe valve injection nozzle of ODU. When the required quantity of refrigerant cannot be quickly filled due to the raise of the intra-pipe pressure, set the unit to cooling status, and fill refrigerant through the gas valve of ODU.

When a full fresh air IDU is connected in a mixed way in the system, charge the corresponding quantity of refrigerant according to the model of the full fresh air IDU, as indicated at the table below:

Model of full fresh air IDU	GMV-NX140P/A (X1.2)-K	GMV-NX224P/A (X2.0)-M	GMV-NX280P/A (X2.5)-M	GMV-NX280P/A (X3.0)-M
Charged quantity (kg) of refrigerant	2	3	4	4

Example:



The outdoor unit consists of the 2 modules of GMV-W280WM/A-X and GMV-W335WM/A-X, the indoor units consists of 4 as below:

No.	IDU ①	IDU ②	IDU ③	IDU ④
Model	Duct type GMV-ND140PLS/A-T	Duct type GMV-ND140PLS/A-T	Duct type GMV-ND140PLS/A-T	Duct type GMV-ND140PLS/A-T

Liquid pipe

No.	X	A	B	C	D
Pipe size	Φ 9.52	Φ 15.9	Φ 12.7	Φ 9.52	Φ 9.52
Length	10m	10m	5m	4m	5m
No.	Y	a	b	c	d
Pipe size	Φ 12.7	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
Length	3m	10m	7m	3m	5m

a) Additional charged refrigerant quantity depending on the pipe size

Total length of each liquid pipe: Φ 9.52:  $X+C+D+a+b+c+d=10+4+5+10+7+3+5=44m$

Total length of each liquid pipe: Φ 12.7:  $B+Y=5+3=8m$

Total length of each liquid pipe: Φ 15.9:  $A=10m$

Additional charged refrigerant quantity= $(0.054 \times 44)+(0.11 \times 8)+(0.17 \times 10)=4.956kg$

b) Additional charged refrigerant quantity depending on Total length

As total length of each liquid pipe:  $44+5+10=59m$ , the additional charged refrigerant quantity depending on Total length should be 1kg

Therefore, the total charging amount= $4.956+1.0=5.956kg$

## 15 OPTIONAL COMPONENTS

The GMV water series VRF units provide the following options:

		Model	Remarks
Manifold	Outdoor unit	FQ01B/A, FQ02/A, FQ03/A, FQ04/A	For the model selection method, see the part of pipeline selection.
	Indoor unit	FQ01A/A, FQ01B/A, FQ02/A, FQ03/A, FQ04/A	
Remote receiving LED panel		JS05	Applicable to the air duct-type indoor unit
Remote controller for debugging		YV1L1	With the debugging function, used to set functions of the indoor unit
Classic wired controller		Wired controller XK46	For model selection of cassette type, floor ceiling type, wall-mounted indoor unit (standard fitting for duct type indoor unit). With the access control function
Wired controller for hotel		Wired controller XK79	
Compact wired controller		Wired controller XK86	
Colour screen wired controller		Wired controller XK55	
Centralized controller		CE52-24/F(C)	
Smart zone controller		CE53-24/F(C)	
E-Smart Zone onroller		CE54-24/F(C)	
Debugging software		DE42-33/A(C)	Applicable to the unit of CAN bus communication technology
Remote monitoring system	Software	FE31-00/AD(BM)	Applicable to the unit of CAN bus communication technology
	Optoelectronic isolated converter	GD02	
	MODbus gateway	ME30-24/E4(M)	
	BACnet gateway	ME30-24/D4(B)	

**NOTE:** If you need the above optional components, please consult your local sales company.

## 16 UNIT OPERATING RANGE

	Inlet water temperature °C	Water flow range m <sup>3</sup> /h	Max water pressure MPa	Indoor temperature range(DB/WB)°C
Cooling	10~50	2~9.5	1.96	21/14~32/25
Heating	10~50	2~9.5	1.96	15/-~30/-

Temperature range of machine room should be 2~40°C , humidity should not be over 80%.

Note:

If the conditions is over the working range of unit, please contact Gree.

When the water temperature is lower or near 0°C , please add glycol into the water for anti-freeze.

For minimum concentration of glycol please see the following sheet:

Water-in temperature of glycol °C	8	6	4	2	0	-2	-4	-6	-8
Minimum concentration of glycol%	10	10	20	20	30	30	30	40	40

Parameters of unit may differ due to improvement of product, there will be no further notification. For specific parameters of unit please subject to the nameplate of product.

# 17 WATER QUALITY REQUIREMENTS

The plate heat exchanger for ODU is designed in the brazed non-detachable structure. To prevent corrosion and scale deposit, the quality of water used for the plate heat exchanger must be specially noted.

Standards of cooling water, hot water and replenished water used for units.

	Item	Unit	Cooling water system		Hot water system		Inclination	
			Circulating water	Replenished water	Circulating water	Replenished water	Corrosion	Scale deposit
Basic items	PH (25°C)	/	6.5-8.2	6.0-8.0	7.0-8.0	7.0-8.0	○	○
	Conductivity (25°C)	mS/m	< 80	< 30	< 30	< 30	○	○
	Cl	(mgCl-/L)	< 200	< 50	< 50	< 50	○	
	SO	(mgSO <sub>4</sub> <sup>2-</sup> /L)	< 200	< 50	< 50	< 50	○	
	Acid consumption (PH4.8)	(mgCaCO <sub>3</sub> /L)	< 100	< 50	< 50	< 50		○
	Total hardness	(mgCaCO <sub>3</sub> /L)	< 200	< 70	< 70	< 70		○
	Calcium hardness	(mgCaCO <sub>3</sub> /L)	< 150	< 50	< 50	< 50		○
Reference items	Ionized silicon	(mgSiO <sub>2</sub> /L)	< 50	< 30	< 30	< 30		○
	Fe	(mgFe/L)	< 1.0	< 0.3	< 1.0	< 0.3	○	○
	Cu	(mgCu/L)	< 0.3	< 0.1	< 1.0	< 0.1	○	
	Sulfate ion	(mgS <sup>2-</sup> /L)	Not detectable	Not detectable	Not detectable	Not detectable	○	
	Ammonium ion	(mgNH <sub>4</sub> <sup>+</sup> /L)	< 1.0	< 0.1	< 0.3	< 0.1	○	
	Residual chlorine	(mgCl/L)	< 0.3	< 0.1	< 1.0	< 0.1	○	
	Free carbon dioxide	(mgCO <sub>2</sub> /L)	< 4.0	< 4.0	< 4.0	< 4.0	○	
Stability index		6.7-7.0				○	○	

Remarks:

- In the "Corrosion" and "Scale deposit" columns, "○" indicates the factor related to corrosion or scale generation.
- The cooling water used for the closed cooling tower, circulating water and replenished water of the closed loop must comply with the water quality standards of the hot water system; the dispersed water and its replenished water must comply with standards of the circulating chilled water system.
- When the temperature is high (higher than or equal to 40°C), the corrosion is significant. Especially when the material is not provided with a protecting film or is in contact with water, it is preferred to adopt effective anticorrosive measures, e.g., add preservative and perform degasification.
- The open circulating water flow will result in corrosion. Do not adopt open circulating water flow.



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