

GMV5 DC INVERTER VRF UNITS

(GC201404)

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TECHNICAL SALES GUIDE-50Hz&60Hz
CAPACITY RANGE: 22.4~180kW
SUPER HIGH AMBIENT OPERATION TO 52 °C

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R410A



GREE ELECTRIC APPLIANCES INC.OF ZHUHAI

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1 UNIT CHARACTERISTICS

GMV5 series DC inverter VRF units: The basic models of the whole series are 8HP, 10HP, 12HP, 14HP, and 16HP, and the combination model is 18HP-64HP.



➤ Energy efficient

The products benefit from the advanced DC inverter technology, optimized air conditioner system design, and accurate intelligent control technology.

➤ High efficient DC inverter compressor

The DC inverter compressor is adopted for Gree DC inverter VRF units. The compressor is designed in the high pressure chamber with excellent performance to suck directly, reduce the suction superheat loss and increase the compression efficiency by 3% in comparison to the low pressure chamber compression. The motor part adopts a high efficient permanent magnet synchronous motor, the rotor is a permanent magnet, and the stator implements concentrated winding. Therefore, the efficiency far surpasses that of a common DC inverter compressor.

➤ Sensorless DC inverter fan motor

The DC convertor motor with a high back electromotive force is adopted to implement stepless speed regulation in the range of 5 Hz to 65 Hz. In contrast to the common DC convertor motor, both the operating current and motor input power are lower, but the efficiency is greatly improved.

➤ Advanced torque control technology

The technology of minimum current and maximum torque control is adopted.

The rotor reluctance torque of DC inverter compressor is effectively used to export the maximum torque at the cost of minimum current, thus reducing the motor winding loss and achieving higher energy efficiency.

The low frequency torque control is implemented.

The motor torque is directly controlled to realize operation of the DC inverter at an ultralow speed. The small torque pulsation not only meets system requirements, but also guarantees the higher degree of comfort.

➔ Comfortable mute

Gree GMV5 air conditioning units fully consider the comfort requirement of people, and the humanized technology further perfects the degree of comfort. The wider operation range of the units ensures normal operation in sub-zero weather or hot weather. The better mute effect creates a quiet environment for work and life.

➤ Outdoor unit mute mode

◆ Night mute

The system can memorize and judge the outdoor maximum temperature. When the system operates with a low load at night, it can automatically enter the mute mode. Nine mute modes can be set for the units according to requirements of actual application scenarios.

For example, the unit can automatically enter the night operation mode after operation for 8h, and will restore the normal operation mode in 9h.

◆ Forced mute

When the unit is installed at a place with the requirement for a lower noise level, it should operate in the mute mode in the daytime and at night. In this case, three forced mute setting modes can be selected to ensure that the unit operates at the low noise mode all the time. The minimum noise value can be 45dB (A).

➤ Indoor unit mute mode

The indoor unit also adopts the DC inverter motor to implement stepless speed regulation and greatly reduce the noise level. Moreover, the wired controller can be used to set the automatic mute mode of indoor unit and enable the automatic mute function according to the indoor temperature and movements of persons. The minimum noise value can be 25dB (A).

➔ Advanced technology to ensure stability and reliability

Gree GMV5 air conditioning units have earned a reputation in the field due to the high technical content. Thanks to research and experiments for more than one decade, all the technologies of GMV have become more matured. Gree GMV5 has been upgraded in an all-round way, including electric elements, machine elements, control technology and communication technology. Continuous revolution in technologies must bring more reliable and efficient service to users.

➤ Two-stage oil separation technology

For the patented two-stage oil separation technology (patent No. 201120003910.7), every basic module is provided with stage-1 and stage-2 oil separators. Stage-1 oil separator uses a filter expansion valve, and the separation efficiency reaches 98%. Stage-2 oil separator further separates 2% of refrigeration oil left, and the separation efficiency reaches 95%. The total oil separation efficiency reaches 99.9%.

➤ Oil return control technologies

Gree owns two major unique oil return control technologies.

◆ Oil return control of new generation

Gree oil return control technology of new generation integrates the pressure control oil return technology. Pressure control effectively controls oil return of the system and the oil storage status of each compressor, thus substantially increasing the service life of the compressor.

◆ Proprietary compressor oil storage technology

Gree DC inverter unit is designed with the proprietary compressor oil storage technology. The relevant parameter is judged to control the lowest oil level required for operating the compressor.

➤ Refrigerant storage and distribution technology

Gree GMV5 adopts the system loop without any reservoir to greatly reduce the refrigerant filling quantity, improve the refrigerant control precision of the system, and store the surplus refrigerant in the pipeline.

➤ Oil balance control technology

- ◆ Inter-module oil balance technology (patent No. 200910041723.5)

The defect of traditional scheduled oil return is eliminated. Oil can be balanced without stopping the system. The technology can judge the operating status of each module and each compressor, calculate the oil reserve of the compressor, adjust the operating status of the compressor, and implement inter-module oil balance. It can ensure reliability and comfortability of the air conditioning system without affecting the capacity output of the system.

- ◆ Inter-compressor oil balance technology

Refrigerant is sucked into the compression chamber of the compressor through the air suction pipe, discharged to the fully-closed compressor cavity after being compressed, and then flows through the refrigerating system via the vent pipe. According to the principle of moving fluid mechanics and the oil quantity actually required during operation of the compressor, the technology decides the height of the oil balance pipe, controls the oil level in the oil pool, ensures the minimum oil quantity required by each compressor during operation, and implements oil balance between compressors.

- Super-cooling control technology is used for refrigeration to substantially reduce the cooling capacity attenuation.

The efficient heat exchange loop is used to implement heat exchanger and super-cooling control. The degree of super-cooling reaches 11°C.

The recooling loop is used to reach a temperature of 9°C and ensure the refrigerating and heating effects.

- Unique comfortability control

The outdoor unit is regulated using dual electronic expansion valves within the regulation range of 960 stages to accurately realize the flow control between the indoor unit module and outdoor unit module, so the system operates more stably.

- Heating can quickly start within 210s, and 100% heat output is provided at the first time.

➤ Humanized engineering operation

- The unit is characterized by automatic address allocation and non-polarity communication.

- The unit can perform automatic debugging and fault detection.

GMV5 has five automatic debugging functions.

- ◆ Automatically allocating indoor and outdoor unit addresses
- ◆ Automatically checking the quantities of indoor and outdoor units
- ◆ Automatically detecting internal faults of units
- ◆ Automatically starting debugging
- ◆ Judging pipeline exceptions in real time

- The units provide three emergency functions: module, compressor and fan.

- The units can recover refrigerants in two modes.

➤ Intelligent management

- The units are designed in the dual-energy saving operation modes.

Along with penetration of energy conservation and emission reduction and increasingly strict requirements for power utilization in cities raised by the state, a lot of cities will issue corresponding power rationing measures in the peak of power consumption, especially in summer. Gree GMV5 air conditioning units provides two energy saving modes for users to select as needed and meets the requirements for off-peak power consumption and power brownout in cities.

- ◆ Energy saving mode 1: When the unit is set to the automatic energy saving mode during operation, the system automatically adjusts and controls the target parameter according to the operating status, and greatly reduces power consumption of the whole system. The maximum energy saving ratio is 15%.

- ◆ Energy saving mode 2: When the unit is set to the forced energy saving mode during operation, the system forcedly limits power output of the system. The maximum energy saving ratio is 20%.

- The unit is provided with the energy consumption analysis function and corresponding solution.
- The unit supports the emergency shutdown function.
Without remote monitoring, the outdoor unit can directly intervene in the fire alarm linkage signal, and the whole system can stop immediately in case of an emergency to avoid more risk losses.
- The unit has the management function by area.

➤ **Ultra-long piping distance design, with the maximum piping length of 1000m**

In comparison to the traditional water chilling unit, the VRF unit shows the strength of simple and convenient engineering piping. Gree GMV5 inverter VRF unit more significantly displays the strength of actual engineering piping, and the air conditioning system can be flexibly applied to various buildings more simply and freely, reducing the engineering installation cost for users.

➤ **A single refrigerating system, able to connect to a maximum of 80 indoor units**

For most VRF units in the market, the single system can connect to a maximum of 64 units. Gree GMV5 can implement combination of module units and connect to a maximum of 80 indoor units (the quantity of connected units ranks first in the field). It is more applicable to large-sized commercial office buildings or apart-hotels.

➤ **Wide operation range**

Operating temperature range: -5°C to 52°C for cooling; -20°C to 24°C for heating.
Operating range of power supply: 3N, 320 V to 460 V, 50 Hz.

➤ **Module switching control**

The module status automatically switches between modules every eight hours according to the operating status. This avoids long-term "waiting for work" of several modules and greatly improves reliability of the whole system.

➤ **High static pressure design of the outdoor unit to realize more flexible selection**

The unit is provided with four levels of static pressures (0 Pa, 30 Pa, 50 Pa, and 82 Pa) for regulation. The corresponding static pressure can be selected for the outdoor unit according to the building form, and the maximum static pressure is 82 Pa. The unit especially applies to the scenario where the outdoor unit needs to be placed indoors.

2 UNIT PARAMETERS

2.1 Outdoor Unit

Model	-	GMV-224WM/B-X	GMV-280WM/B-X	GMV-335WM/B-X	GMV-400WM/B-X	GMV-450WM/B-X
Cooling capacity	kW	22.40	28.00	33.50	40.00	45.00
Heating capacity	kW	25.00	31.50	37.50	45.00	50.00
Air volume	m ³ /h	11400	11400	14000	14000	14000
Maximum external static pressure of unit	Pa	82	82	82	82	82
Noise (sound pressure level)	dB(A)	60	61	63	63	63
Power supply	-	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz
Cooling power input	kW	5.20	7.00	8.41	10.65	12.65
Heating power input	kW	5.50	7.30	9.00	11.10	13.00
Cooling current input	A	9.30	12.50	15.00	19.00	22.6
Heating current input	A	9.80	13.00	16.10	19.80	23.20
Maximum power input	kW	8.80	11.70	13.80	16.10	18.60
Maximum current	A	15.7	20.9	24.7	28.8	33.2
Compressor type	-	Inverter scroll type	Inverter scroll type	Inverter scroll type	Inverter scroll type	Inverter scroll type
Number of compressors	N	1	1	1	2	2
Compressor refrigeration oil brand	-	FVC68D or FV-68H	FVC68D or FV-68H	FVC68D or FV-68H	FVC68D or FV-68H	FVC68D or FV-68H
oil charge*	Totally	L	4.0	4.0	4.5	5.5
	Compressor	L	1.0	1.0	1.0	1.0×2
	Else	L	3.0	3.0	3.5	3.5
Ambient temperature range of cooling	°C	-5~52	-5~52	-5~52	-5~52	-5~52
Ambient temperature range of heating	°C	-20~24	-20~24	-20~24	-20~24	-20~24
Refrigerant type	-	R410A	R410A	R410A	R410A	R410A
Refrigerant fcharge volume	kg	5.9	6.7	8.2	9.80	10.30
Maximum qty of connected indoor units	unit	13	16	19	23	26
Gas pipe size	mm	Φ 19.05	Φ 22.2	Φ 25.4	Φ 25.40	Φ 28.60
Liquid pipe size	mm	Φ 9.52	Φ 9.52	Φ 12.7	Φ 12.7	Φ 12.7
Oil balance pipe size	mm	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
External dimension (width)	mm	930	930	1340	1340	1340
External dimension (depth)	mm	765	765	765	765	765
External dimension (height)	mm	1605	1605	1605	1605	1605
Packaging dimension (width)	mm	1010	1010	1420	1420	1420
Packaging dimension (depth)	mm	840	840	840	840	840
Packaging dimension (height)	mm	1775	1775	1775	1775	1775
Net weight	kg	225	225	285	360	360
Gross weight	kg	235	235	300	375	375

*: Total oil quantity of outdoor unit, oil storing quantity of compressor and oil storing quantity of oil balancer are listed. When replacing compressor or oil balancer, only need to charge the corresponding additional oil quantity.

Model	-	GMV-504WM/B-X	GMV-560WM/B-X	GMV-615WM/B-X	GMV-680WM/B-X	GMV-730WM/B-X
Module combination	-	GMV-224WM/B-X +GMV-280WM/B-X	GMV-280WM/B-X +GMV-280WM/B-X	GMV-280WM/B-X +GMV-335WM/B-X	GMV-280WM/B-X +GMV-400WM/B-X	GMV-280WM/B-X +GMV-450WM/B-X
Cooling capacity	kW	50.4	56	61.5	68	73
Heating capacity	kW	56.5	62.5	69	76.5	81.5
Air volume	m ³ /h	11400+11400	11400+11400	11400+14000	11400+14000	11400+14000
Maximum external static pressure of unit	Pa	82	82	82	82	82
Noise (sound pressure level)	dB(A)	64	64	65	65	65
Power supply	-	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz
Cooling power input	kW	12.20	14.00	15.41	17.65	19.65
Heating power input	kW	12.80	14.60	16.30	18.40	20.30
Cooling current input	A	9.3+12.5	12.5+12.5	12.5+15.0	12.5+19.0	12.5+22.6
Heating current input	A	9.8+13.0	13.0+13.0	13.0+16.1	13.0+19.8	13.0+23.2
Maximum power input	kW	20.50	23.40	25.50	27.80	30.30
Maximum current	A	36.6	41.8	45.6	49.7	54.1
Ambient temperature range of cooling	°C	-5~52	-5~52	-5~52	-5~52	-5~52
Ambient temperature range of heating	°C	-20~24	-20~24	-20~24	-20~24	-20~24
Refrigerant type	-	R410A	R410A	R410A	R410A	R410A
Refrigerant fcharge volume	kg	5.9+6.7	6.7+6.7	6.7+11.7	6.7+9.8	6.7+10.3
Maximum qty of connected indoor units	unit	29	33	36	39	43
Gas pipe size	mm	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ31.8
Liquid pipe size	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ19.05
Oil balance pipe size	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52

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Model	-	GMV-785WM/B-X	GMV-850WM/B-X	GMV-900WM/B-X	GMV-960WM/B-X	GMV-1010WM/B-X
Module combination	-	GMV-335WM/B-X +GMV-450WM/B-X	GMV-400WM/B-X +GMV-450WM/B-X	GMV-450WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +GMV-280WM/B-X +GMV-400WM/B-X	GMV-280WM/B-X +GMV-280WM/B-X +GMV-450WM/B-X
Cooling capacity	kW	78.5	85	90	96	101
Heating capacity	kW	87.5	95	100	108	113
Air volume	m ³ /h	14000+14000	14000+14000	14000+14000	11400+11400 +14000	11400+11400 +14000
Maximum external static pressure of unit	Pa	82	82	82	82	82
Noise (sound pressure level)	dB(A)	66	66	66	67	67
Power supply	-	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz
Cooling power input	kW	21.06	23.30	25.30	24.65	26.65
Heating power input	kW	22.00	24.10	26.00	25.70	27.60
Cooling current input	A	15.0+22.6	19.0+22.6	22.6+22.6	12.5+12.5+19.0	12.5+12.5+22.6
Heating current input	A	16.1+23.2	19.8+23.2	23.2+23.2	13.0+13.0+19.8	13.0+13.0+23.2
Maximum power input	kW	32.20	34.70	37.20	39.50	42.00
Maximum current	A	57.6	62	66.4	70.6	75
Ambient temperature range of cooling	°C	-5~52	-5~52	-5~52	-5~52	-5~52
Ambient temperature range of heating	°C	-20~24	-20~24	-20~24	-20~24	-20~24
Refrigerant type	-	R410A	R410A	R410A	R410A	R410A
Refrigerant fcharge volume	kg	8.2+10.3	9.8+10.3	10.3+10.3	6.7+6.7+9.8	6.7+6.7+10.3
Maximum qty of connected indoor units	unit	46	50	53	56	59
Gas pipe size	mm	Φ31.8	Φ31.8	Φ31.8	Φ31.8	Φ38.1
Liquid pipe size	mm	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05
Oil balance pipe size	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52

Model	-	GMV-1065WM/B-X	GMV-1130WM/B-X	GMV-1180WM/B-X	GMV-1235WM/B-X	GMV-1300WM/B-X
Module combination	-	GMV-280WM/B-X +GMV-335WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +GMV-400WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-335WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-400WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X
Cooling capacity	kW	106.5	113	118	123.5	130
Heating capacity	kW	119	126.5	131.5	137.5	145
Air volume	m ³ /h	11400+14000 +14000	11400+14000 +14000	11400+14000 +14000	14000+14000+ 14000	14000+14000+ 14000
Maximum external static pressure of unit	Pa	82	82	82	82	82
Noise (sound pressure level)	dB(A)	67	67	67	68	68
Power supply	-	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz
Cooling power input	kW	28.06	30.30	32.30	33.71	35.95
Heating power input	kW	29.30	31.40	33.00	35.00	37.10
Cooling current input	A	12.5+15.0+22.6	12.5+19.0+22.6	12.5+22.6+22.6	15.0+22.6+22.6	19.0+22.6+22.6
Heating current input	A	13.0+16.1+23.2	13.0+19.8+23.2	13+23.2+23.2	16.1+23.2+23.2	19.8+23.2+23.2
Maximum power input	kW	43.90	46.40	48.90	50.80	53.30
Maximum current	A	78.5	82.9	87.3	90.8	95.2
Ambient temperature range of cooling	°C	-5~52	-5~52	-5~52	-5~52	-5~52
Ambient temperature range of heating	°C	-20~24	-20~24	-20~24	-20~24	-20~24
Refrigerant type	-	R410A	R410A	R410A	R410A	R410A
Refrigerant fcharge volume	kg	6.7+8.2+10.3	6.7+9.8+10.3	6.7+10.3+10.3	8.2+10.3+10.3	9.8+10.3+10.3
Maximum qty of connected indoor units	unit	63	64	64	64	64
Gas pipe size	mm	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1
Liquid pipe size	mm	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05
Oil balance pipe size	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52

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Model	-	GMV-1350WM/B-X	GMV-1410WM/B-X	GMV-1460WM/B-X	GMV-1515WM/B-X	GMV-1580WM/B-X
Module combination	-	GMV-450WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +GMV-280WM/B-X +GMV-400WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +MV-280WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +GMV-335WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-280WM/B-X +GMV-400WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X
Cooling capacity	kW	135	141	146	151.5	158
Heating capacity	kW	150	158	163	169	176.5
Air volume	m ³ /h	14000+14000 +14000	11400+11400 +14000+14000	11400+11400 +14000+14000	11400+14000 +14000+14000	11400+14000 +14000+14000
Maximum external static pressure of unit	Pa	82	82	82	82	82
Noise (sound pressure level)	dB(A)	68	69	69	69	69
Power supply	-	380~415V 3N~50Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz
Cooling power input	kW	37.95	37.30	39.30	40.71	42.95
Heating power input	kW	39.00	38.70	40.60	42.30	44.40
Cooling current input	A	22.6+22.6+22.6	12.5+12.5 +19.0+22.6	12.5+12.5 +22.6+22.6	12.5+15.0 +22.6+22.6	12.5+19.0 +22.6+22.6
Heating current input	A	23.2+23.2+23.2	13.0+13.0 +19.8+23.2	13+13 +23.2+23.2	13.0+16.1 +23.2+23.2	13.0+19.8 +23.2+23.2
Maximum power input	kW	55.80	58.10	60.60	62.70	65.00
Maximum current	A	99.6	103.8	108.2	112	116.1
Ambient temperature range of cooling	°C	-5~52	-5~52	-5~52	-5~52	-5~52
Ambient temperature range of heating	°C	-20~24	-20~24	-20~24	-20~24	-20~24
Refrigerant type	-	R410A	R410A	R410A	R410A	R410A
Refrigerant fcharge volume	kg	10.3+10.3+10.3	6.7+6.7+9.8+10.3	6.7+6.7+10.3 +10.3	6.7+8.2+14.3 +14.3	6.7+9.8+10.3 +10.3
Maximum qty of connected indoor units	unit	64	66	69	71	74
Gas pipe size	mm	Φ38.1	Φ44.5	Φ44.5	Φ44.5	Φ44.5
Liquid pipe size	mm	Φ19.05	Φ22.2	Φ22.2	Φ22.2	Φ22.2
Oil balance pipe size	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52

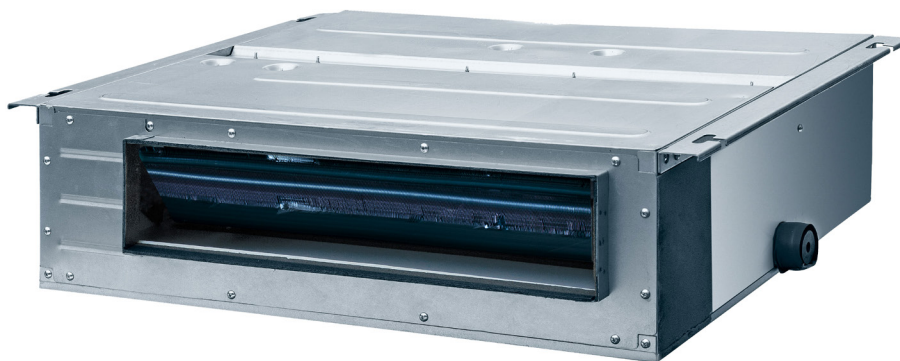
Model	-	GMV-1630WM/B-X	GMV-1685WM/B-X	GMV-1750WM/B-X	GMV-1800WM/B-X
Module combination	-	GMV-280WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-335WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-400WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X	GMV-450WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X +GMV-450WM/B-X
Cooling capacity	kW	163	168.5	175	180
Heating capacity	kW	181.5	187.5	195	200
Air volume	m ³ /h	11400+14000 +14000+14000	14000+14000 +14000+14000	14000+14000 +14000+14000	14000+14000 +14000+14000
Maximum external static pressure of unit	Pa	82	82	82	82
Noise (sound pressure level)	dB(A)	69	70	70	70
Power supply	-	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz	380~415V 3N~50/60Hz
Cooling power input	kW	44.95	46.36	48.60	50.60
Heating power input	kW	46.30	48.00	50.10	52.00
Cooling current input	A	12.5+22.6+22.6+22.6	15.0+22.6+22.6+22.6	19.0+22.6+22.6+22.6	22.6+22.6+22.6+22.6
Heating current input	A	13.0+23.2+23.2+23.2	16.1+23.2+23.2+23.2	19.8+23.2+23.2+23.2	23.2+23.2+23.2+23.2
Maximum power input	kW	67.50	69.60	71.90	74.40
Maximum current	A	120.5	124.3	128.4	132.8
Ambient temperature range of cooling	°C	-5~52	-5~52	-5~52	-5~52
Ambient temperature range of heating	°C	-20~24	-20~24	-20~24	-20~24
Refrigerant type	-	R410A	R410A	R410A	R410A
Refrigerant fcharge volume	kg	6.7+10.3+10.3+10.3	8.2+10.3+10.3+10.3	13.8+10.3+10.3+10.3	10.3+10.3+10.3+10.3
Maximum qty of connected indoor units	unit	77	80	80	80
Gas pipe size	mm	Φ44.5	Φ44.5	Φ44.5	Φ44.5
Liquid pipe size	mm	Φ22.2	Φ22.2	Φ22.2	Φ22.2
Oil balance pipe size	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52

NOTES:

- Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.
- The total capacity of connected indoor units must be in the range of 50%~135% of the outdoor unit capacity. The relevant parameters can be corrected by referring to the unit capacity correction table.
- The above parameters are tested based on the standard connection pipe length. In the actual project, the parameters should be corrected referring to the capacity correction for the long connection pipe of units.

➔ 2.2 Indoor Unit

2.2.1 Low Static Pressure Duct Type Indoor Unit



Model		GMV-ND22PLS/A-T	GMV-ND25PLS/A-T	GMV-ND28PLS/A-T	GMV-ND32PLS/A-T	GMV-ND36PLS/A-T
Horse Power	HP	1	1	1	1.5	1.5
Cooling capacity	kW	2.2	2.5	2.8	3.2	3.6
Heating capacity	kW	2.5	2.8	3.2	3.6	4.0
Air volume	m ³ /h	450	450	450	550	550
ESP	Pa	15/0~30	15/0~30	15/0~30	15/0~30	15/0~30
Cooling power input	W	35	35	35	43	43
Cooling current input	A	0.2	0.2	0.2	0.2	0.2
Heating power input	W	35	35	35	43	43
Heating current input	A	0.2	0.2	0.2	0.2	0.2
*Minimum line current	A	0.25	0.25	0.25	0.25	0.25
*Maximum fuse current	A	6	6	6	6	6
Sound pressure level	dB(A)	31	31	31	32	32
Power supply**		220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz				
Pipe diameter	Liquid pipe	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	Gas pipe	mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
Drain pipe	Outer diameter×Wall thickness	mm	Φ25×2.5	Φ25×2.5	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	700×615×200	700×615×200	700×615×200	700×615×200
Net weight	kg	22	22	22	22	22

Model			GMV-ND40PLS/A-T	GMV-ND45PLS/A-T	GMV-ND50PLS/A-T	GMV-ND56PLS/A-T
Horse Power	HP		1.5	2	2	2
Cooling capacity	kW		4.0	4.5	5.0	5.6
Heating capacity	kW		4.5	5.0	5.6	6.3
Air volume	m ³ /h		700	700	700	1000
ESP	Pa		15/0~30	15/0~30	15/0~30	15/0~30
Cooling power input	W		52	52	52	99
Cooling current input	A		0.3	0.3	0.3	0.5
Heating power input	W		52	52	52	99
Heating current input	A		0.3	0.3	0.3	0.5
*Minimum line current	A		0.38	0.38	0.38	0.63
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		33	33	33	35
Power supply**			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ 6.35	Φ 6.35	Φ 6.35	Φ 9.52
	Gas pipe	mm	Φ 12.7	Φ 12.7	Φ 12.7	Φ 15.9
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Dimension	W×D×H	mm	900×615×200	900×615×200	900×615×200	1100×615×200
Net weight	kg		27	27	27	31

Model			GMV-ND63PLS/A-T	GMV-ND71PLS/A-T	GMV-ND80PLS/A-T	GMV-ND90PLS/A-T
Horse Power	HP		3	3	3	4
Cooling capacity	kW		6.3	7.1	8.0	9.0
Heating capacity	kW		7.1	8.0	9.0	10.0
Air volume	m ³ /h		1000	1000	1100	1500
ESP	Pa		15/0~30	30/0~50	30/0~50	30/0~50
Cooling power input	W		99	105	140	209
Cooling current input	A		0.5	0.5	0.7	1.0
Heating power input	W		99	105	140	209
Heating current input	A		0.5	0.5	0.7	1.0
*Minimum line current	A		0.63	0.63	0.88	1.25
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		35	35	36	40
Power supply**			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
	Gas pipe	mm	Φ 15.9	Φ 15.9	Φ 15.9	Φ 15.9
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Dimension	W×D×H	mm	1100×615×200	1100×615×200	1200×655×260	1340×655×260
Net weight	kg		31	31	40	46

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Model			GMV-ND100PLS/A-T	GMV-ND112PLS/A-T	GMV-ND125PLS/A-T	GMV-ND140PLS/A-T
Horse Power	HP		4	4	5	5
Cooling capacity	kW		10.0	11.2	12.5	14.0
Heating capacity	kW		11.2	12.5	14.0	16.0
Air volume	m ³ /h		1500	1700	2000	2000
ESP	Pa		30/0~50	30/0~50	30/0~50	30/0~50
Cooling power input	W		209	209	230	230
Cooling current input	A		1.0	1.0	1.1	1.1
Heating power input	W		209	209	230	230
Heating current input	A		1.0	1.0	1.1	1.1
*Minimum line current	A		1.25	1.25	1.38	1.38
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		40	40	42	42
Power supply**			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
	Gas pipe	mm	Φ 15.9	Φ 15.9	Φ 15.9	Φ 15.9
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Dimension	W×D×H	mm	1340×655×260	1340×655×260	1340×655×260	1340×655×260
Net weight		kg	46	46	47	47

NOTES:

- Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.
- In the column of "Unit external static pressure": The figure before "/" indicates the default external static pressure of unit before delivery, and the figures after indicate the adjustable static pressure range of unit.

2.2.2 4-way Cassette Type Indoor Unit



Model			GMV-ND28T/A-T	GMV-ND36T/A-T	GMV-ND45T/A-T	GMV-ND50T/A-T	GMV-ND56T/A-T
Horse Power	HP		1	1.5	2	2	2
Cooling capacity	kW		2.8	3.6	4.5	5.0	5.6
Heating capacity	kW		3.2	4.0	5.0	5.6	6.3
Air volume	m ³ /h		750	750	750	830	1000
Cooling power input	W		48	48	48	50	59
Cooling current input	A		0.2	0.2	0.2	0.2	0.3
Heating power input	W		48	48	48	50	59
Heating current input	A		0.2	0.2	0.2	0.2	0.3
*Minimum line current	A		0.25	0.25	0.25	0.25	0.38
*Maximum fuse current	A		6	6	6	6	6
Noise (sound pressure)	dB(A)		36	36	36	36	37
Power supply**			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz				
Pipe diameter	Liquid pie	mm	Φ 9.52	Φ 12.7	Φ 12.7	Φ 12.7	Φ 15.9
	Gas pipe	mm	Φ 6.35	Φ 6.35	Φ 6.35	Φ 6.35	Φ 9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Main body dimension	W×D×H	mm	840×840×190	840×840×190	840×840×190	840×840×190	840×840×240
Panel dimension	W×D×H	mm	950×950×65	950×950×65	950×950×65	950×950×65	950×950×65
Net weight	Main body	kg	25	25	25	25	30
	Panel	kg	7	7	7	7	7

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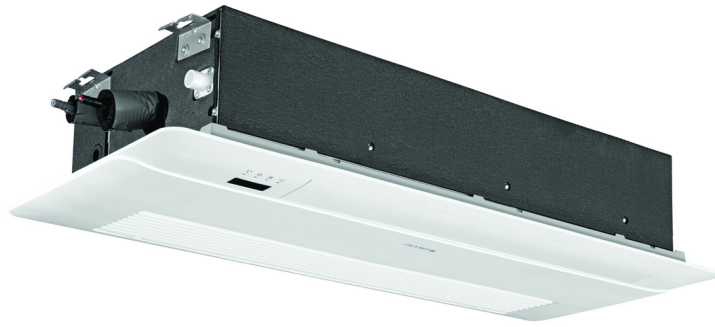
Model		GMV-ND63T/A-T	GMV-ND71T/A-T	GMV-ND80T/A-T	GMV-ND90T/A-T	GMV-ND100T/A-T	
Horse Power	HP	3	3	3	4	4	
Cooling capacity	kW	6.3	7.1	8.0	9.0	10.0	
Heating capacity	kW	7.1	8.0	9.0	10.0	11.2	
Air volume	m ³ /h	1000	1180	1180	1500	1500	
Cooling power input	W	59	68	68	98	98	
Cooling current input	A	0.3	0.3	0.3	0.4	0.4	
Heating power input	W	59	68	68	98	98	
Heating current input	A	0.3	0.3	0.3	0.4	0.4	
*Minimum line current	A	0.38	0.38	0.38	0.5	0.5	
*Maximum fuse current	A	6	6	6	6	6	
Noise (sound pressure)	dB(A)	37	37	37	40	40	
Power supply**		220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz					
Pipe diameter	Liquid pipe	mm	Φ 15.9	Φ 15.9	Φ 15.9	Φ 15.9	Φ 15.9
	Gas pipe	mm	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Main body dimension	W×D×H	mm	840×840×240	840×840×240	840×840×240	840×840×320	840×840×320
Panel dimension	W×D×H	mm	950×950×65	950×950×65	950×950×65	950×950×65	950×950×65
Net weight	Main body	kg	30	30	30	35	35
	Panel	kg	7	7	7	7	7

Model			GMV-ND112T/A-T	GMV-ND125T/A-T	GMV-ND140T/A-T	GMV-ND160T/A-T
Horse Power	HP		4	5	5	5
Cooling capacity	kW		11.2	12.5	14.0	16.0
Heating capacity	kW		12.5	14.0	16.0	17.5
Air volume	m ³ /h		1700	1860	1860	2100
Cooling power input	W		110	110	110	135
Cooling current input	A		0.5	0.5	0.5	0.6
Heating power input	W		110	110	110	135
Heating current input	A		0.5	0.5	0.5	0.6
*Minimum line current	A		0.63	0.63	0.63	0.75
*Maximum fuse current	A		6	6	6	6
Noise (sound pressure)	dB(A)		41	43	43	47
Power supply**			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pie	mm	Φ 15.9	Φ 15.9	Φ 15.9	Φ 15.9
	Gas pipe	mm	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Main body dimension	W×D×H	mm	840×840×320	840×840×320	840×840×320	910×910×293
Panel dimension	W×D×H	mm	950×950×65	950×950×65	950×950×65	1040×1040×65
Net weight	Main body	kg	35	35	35	45
	Panel	kg	7	7	7	7.5

NOTES:

- a. Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- b. Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.

2.2.3 1-way Cassette Type Indoor Unit



Model		GMV-ND22TD/A-T	GMV-ND28TD/A-T	GMV-ND36TD/A-T	GMV-ND45TD/A-T	GMV-ND50TD/A-T	
Horse Power	HP	1	1	1.5	2	2	
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.0	
Heating capacity	kW	2.5	3.2	4.0	5.0	5.6	
Air volume	m ³ /h	600	600	600	830	830	
Cooling power input	W	30	30	30	45	45	
Cooling current input	A	0.2	0.2	0.2	0.3	0.3	
Heating power input	W	30	30	30	45	45	
Heating current input	A	0.2	0.2	0.2	0.3	0.3	
*Minimum line current	A	0.25	0.25	0.25	0.38	0.38	
*Maximum fuse current	A	6	6	6	6	6	
Sound pressure level	dB(A)	36	36	36	40	40	
Power supply		220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz					
Pipe diameter	Liquid pipe	mm	Φ 6.35	Φ 6.35	Φ 6.35	Φ 6.35	Φ 6.35
	Gas pipe	mm	Φ 9.52	Φ 9.52	Φ 12.7	Φ 12.7	Φ 12.7
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Main body dimensions	W×D×H	mm	987×385×178	987×385×178	987×385×178	987×385×178	987×385×178
Panel dimensions	W×D×H	mm	1200×460×55	1200×460×55	1200×460×55	1200×460×55	1200×460×55
Net weight	Main body	kg	20	20	20	21	21
	Panel	kg	4.2	4.2	4.2	4.2	4.2

NOTES:

- Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.

2.2.4 High Static Pressure Duct Type Indoor Unit



Model		GMV-ND56PHS/A-T	GMV-ND63PHS/A-T	GMV-ND71PHS/A-T	GMV-ND80PHS/A-T	
Horse Power	HP	2	3	3	3	
Cooling capacity	kW	5.6	6.3	7.1	8.0	
Heating capacity	kW	6.3	7.1	8.0	9.0	
Air volume	m ³ /h	1000	1000	1100	1100	
Static pressure (Pa)	Standard	70	70	70	70	
	Optional	0~100	0~100	0~100	0~100	
Cooling power input	W	120	120	130	130	
Cooling current input	A	0.6	0.6	0.6	0.6	
Heating input power	W	120	120	130	130	
Heating current input	A	0.6	0.6	0.6	0.6	
Minimum line current	A	0.75	0.75	0.75	0.75	
Maximum fuse current	A	6	6	6	6	
Sound pressure level	dB(A)	44	44	45	45	
Power supply		220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz				
Pipe diameter	Liquid pie	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas pipe	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9
Drain pipe	Outer diameter× Wall thickness	mm	Φ25×2.5	Φ25×2.5	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	1271×558×268	1271×558×268	1271×558×268	1271×558×268
Net weight		kg	35	35	35	35

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Model			GMV-ND90PHS/A-T	GMV-ND100PHS/A-T	GMV-ND112PHS/A-T	GMV-ND125PHS/A-T
Horse Power	HP		4	4	4	5
Cooling capacity	kW		9.0	10.0	11.2	12.5
Heating capacity	kW		10.0	11.2	12.5	14.0
Air volume	m ³ /h		1700	1700	1700	2000
Static pressure (Pa)	Standard		70	70	70	70
	Optional		0~100	0~100	0~100	0~100
Cooling power input	W		200	200	200	220
Cooling current input	A		1.0	1.0	1.0	1.0
Heating input power	W		200	200	200	220
Heating current input	A		1.0	1.0	1.0	1.0
Minimum line current	A		1.25	1.25	1.25	1.25
Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		46	46	46	48
Power supply			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas pipe	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9
Drain pipe	Outer diameter× Wall thickness	mm	Φ25×2.5	Φ25×2.5	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	1229×775×290	1229×775×290	1229×775×290	1229×775×290
Net weight	kg		47	47	47	47

Model			GMV-ND140PHS/A-T	GMV-ND224PH/A-T	GMV-ND280PH/A-T	
Horse Power	HP		5	8	10	
Cooling capacity	kW		14.0	22.4	28.0	
Heating capacity	kW		16.0	25.0	31.0	
Air volume	m ³ /h		2000	4000	4400	
Static pressure (Pa)	Standard		70	150	150	
	Optional		0~100	50~200	50~200	
Cooling power input	W		220	800	900	
Cooling current input	A		1.0	4.3	4.75	
Heating input power	W		220	800	900	
Heating current input	A		1.0	4.3	4.75	
Minimum line current	A		1.25	6	6	
Maximum fuse current	A		6	10	10	
Sound pressure level	dB(A)		48	54	55	
Power supply			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ 9.52	Φ 9.52	Φ 9.52	
	Gas pipe	mm	Φ 15.9	Φ 19.05	Φ 22.2	
Drain pipe	Outer diameter × Wall thickness	mm	Φ 25 × 2.5	Φ 30 × 1.5	Φ 30 × 1.5	
Dimension	W × D × H	mm	1229 × 775 × 290	1483 × 791 × 385	1686 × 870 × 450	
Net weight			kg	47	82	105

NOTES:

- a. Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- b. Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.

2.2.5 Floor Ceiling Type Indoor Unit



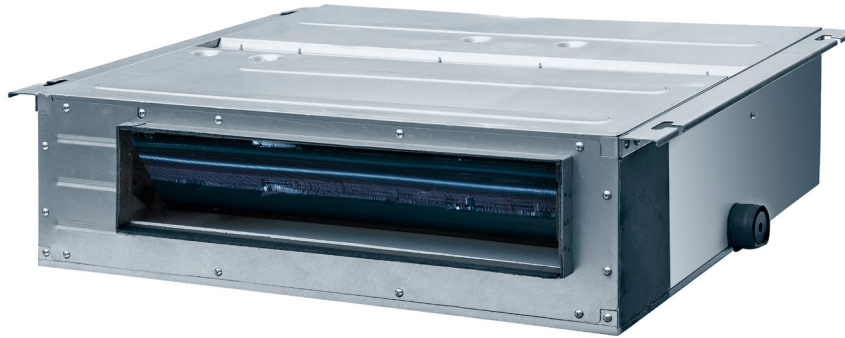
Model		GMV-ND28ZD/A-T	GMV-ND36ZD/A-T	GMV-ND50ZD/A-T	GMV-ND63ZD/A-T	GMV-ND71ZD/A-T	
Horse Power	HP	1	1.5	2	3	3	
Cooling capacity	kW	2.8	3.6	5.0	6.3	7.1	
Heating capacity	kW	3.2	4.0	5.6	7.1	8.0	
Air volume	m ³ /h	650	650	950	1400	1400	
Cooling power input	W	40	40	50	75	75	
Cooling current input	A	0.2	0.2	0.25	0.38	0.38	
Heating power input	W	40	40	50	75	75	
Heating current input	A	0.2	0.2	0.25	0.38	0.38	
*Minimum line current	A	0.25	0.25	0.3	0.48	0.48	
*Maximum fuse current	A	6	6	6	6	6	
Sound pressure level	dB(A)	36	36	42	44	44	
Power supply		220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz					
Pipe diameter	Liquid pipe	mm	Φ9.52	Φ12.7	Φ12.7	Φ15.9	Φ15.9
	Gas pipe	mm	Φ6.35	Φ6.35	Φ6.35	Φ9.52	Φ9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ17×1.5	Φ17×1.5	Φ17×1.5	Φ17×1.5	Φ17×1.5
Dimension	W×D×H	mm	1220×700×225	1220×700×225	1220×700×225	1420×700×245	1420×700×245
Net weight		kg	40	40	40	50	50

Model			GMV-ND90ZD/A-T	GMV-ND112ZD/A-T	GMV-ND125ZD/A-T	GMV-ND140ZD/A-T
Horse Power	HP		4	4	5	5
Cooling capacity	kW		9.0	11.2	12.5	14.0
Heating capacity	kW		10.0	12.5	14.0	16.0
Air volume	m ³ /h		1600	2000	2000	2000
Cooling power input	W		140	160	160	160
Cooling current input	A		0.7	0.95	0.95	0.95
Heating power input	W		140	160	160	160
Heating current input	A		0.7	0.95	0.95	0.95
*Minimum line current	A		0.88	1.2	1.2	1.2
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		50	52	52	52
Power supply			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ 15.9	Φ 15.9	Φ 15.9	Φ 15.9
	Gas pipe	mm	Φ 9.52	Φ 9.52	Φ 9.52	Φ 9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ 17×1.5	Φ 17×1.5	Φ 17×1.5	Φ 17×1.5
Dimension	W×D×H	mm	1420×700×245	1700×700×245	1700×700×245	1700×700×245
Net weight		kg	50	60	60	60

NOTES:

- a. Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- b. Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.

2.2.6 Slim Duct Type Indoor Unit



Model			GMV-ND22PL/B-T	GMV-ND25PL/B-T	GMV-ND28PL/B-T	GMV-ND32PL/B-T
Horse Power	HP		1	1	1	1.5
Cooling capacity	kW		2.2	2.5	2.8	3.2
Heating capacity	kW		2.5	2.8	3.2	3.6
Air volume	m ³ /h		450	450	450	550
ESP	Pa		0/0~15	0/0~15	0/0~15	0/0~15
Cooling power input	W		25	25	25	30
Cooling current input	A		0.2	0.2	0.2	0.3
Heating power input	W		25	25	25	30
Heating current input	A		0.2	0.2	0.2	0.3
*Minimum line current	A		0.25	0.25	0.25	0.38
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		30	30	30	31
Power supply			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pie	mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7
	Gas pipe	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Drain pipe	Outer diameter× Wall thickness	mm	Φ25×2.5	Φ25×2.5	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	710×450×200	710×450×200	710×450×200	710×450×200
Net weight		kg	18.5	18.5	18.5	19.5

Model			GMV-ND36PL/B-T	GMV-ND40PL/B-T	GMV-ND45PL/B-T	GMV-ND50PL/B-T
Horse Power	HP		1.5	1.5	2	2
Cooling capacity	kW		3.6	4.0	4.5	5.0
Heating capacity	kW		4.0	4.5	5.0	5.6
Air volume	m ³ /h		550	750	0/0~15	0/0~15
ESP	Pa		0/0~15	0/0~15	750	750
Cooling power input	W		30	35	35	35
Cooling current input	A		0.3	0.3	0.3	0.3
Heating power input	W		30	35	35	35
Heating current input	A		0.3	0.3	0.3	0.3
*Minimum line current	A		0.38	0.38	0.38	0.38
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		31	33	33	33
Power supply			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz			
Pipe diameter	Liquid pipe	mm	Φ 12.7	Φ 12.7	Φ 12.7	Φ 12.7
	Gas pipe	mm	Φ 6.35	Φ 6.35	Φ 6.35	Φ 6.35
Drain pipe	Outer diameter× Wall thickness	mm	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5	Φ 25×2.5
Dimension	W×D×H	mm	710×450×200	1010×450×200	1010×450×200	1010×450×200
Net weight		kg	19.5	23.5	23.5	23.5

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Model			GMV-ND56PL/B-T	GMV-ND63PL/B-T	GMV-ND72PL/B-T
Horse Power	HP		2	3	3
Cooling capacity	kW		5.6	6.3	7.2
Heating capacity	kW		6.3	7.1	8.0
Air volume	m ³ /h		0/0~15	0/0~15	0/0~15
ESP	Pa		850	850	1100
Cooling power input	W		45	45	50
Cooling current input	A		0.3	0.3	0.5
Heating power input	W		45	45	50
Heating current input	A		0.3	0.3	0.5
*Minimum line current	A		0.38	0.38	0.63
*Maximum fuse current	A		6	6	6
Sound pressure level	dB(A)		35	35	37
Power supply			220-240V 1 phase ~50Hz/208-230V 1 phase ~60Hz		
Pipe diameter	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9
	Gas pipe	mm	Φ9.52	Φ9.52	Φ9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ25×2.5	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	1010×450×200	1010×450×200	1310×450×200
Net weight		kg	24.5	24.5	30.5

NOTES:

- Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.
- In the column of "Unit external static pressure": The figure before "/" indicates the default external static pressure of unit before delivery, and the figures after indicate the adjustable static pressure range of unit.

2.2.7 Wall Mounted Type Indoor Unit



Model			GMV-N22G/A3A-K	GMV-N28G/A3A-K	GMV-N36G/A3A-K	GMV-N45G/A3A-K
Horse Power	HP		1	1	1.5	2
Cooling capacity	kW		2.2	2.8	3.6	4.5
Heating capacity	kW		2.5	3.2	4.0	5.0
Air volume	m ³ /h		500	500	630	630
Cooling power input	W		40	40	60	60
Cooling current input	A		0.2	0.2	0.3	0.3
Heating power input	W		40	40	60	60
Heating current input	A		0.2	0.2	0.3	0.3
*Minimum line current	A		0.25	0.25	0.38	0.38
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		38	38	44	44
Power supply			220-240V 1phase ~50Hz			
Pipe diameter	Liquid pipe	mm	Φ9.52	Φ9.52	Φ12.7	Φ12.7
	Gas pipe	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Drain pipe	Outer diameter× Wall thickness	mm	Φ17×1.5	Φ17×1.5	Φ17×1.5	Φ17×1.5
Dimension	W×D×H	mm	843×180×275	843×180×275	940×200×298	940×200×298
Net weight		kg	10.0	10.0	12.5	12.5

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Model			GMV-N50G/A3A-K	GMV-N56G/A3A-K	GMV-N63G/A3A-K	GMV-N71G/A3A-K
Horse Power	HP		2	2	3	3
Cooling capacity	kW		5.0	5.6	6.3	7.1
Heating capacity	kW		5.8	6.3	7.0	7.5
Air volume	m ³ /h		630	750	750	750
Cooling power input	W		60	70	70	70
Cooling current input	A		0.3	0.4	0.4	0.4
Heating power input	W		60	70	70	70
Heating current input	A		0.3	0.4	0.4	0.4
*Minimum line current	A		0.38	0.5	0.5	0.5
*Maximum fuse current	A		6	6	6	6
Sound pressure level	dB(A)		44	44	44	44
Power supply			220-240V 1phase ~50Hz			
Pipe diameter	Liquid pipe	mm	Φ 12.7	Φ 15.9	Φ 15.9	Φ 15.9
	Gas pipe	mm	Φ 6.35	Φ 9.52	Φ 9.52	Φ 9.52
Drain pipe	Outer diameter× Wall thickness	mm	Φ 17×1.5	Φ 17×1.5	Φ 17×1.5	Φ 17×1.5
Dimension	W×D×H	mm	940×200×298	1008×221×319	1008×221×319	1008×221×319
Net weight		kg	12.5	15.0	15.0	15.0

NOTES:

- Rated cooling capacity test conditions: indoor 27°C DB/19°C WB, outdoor 35°C DB; connection pipe length: 5m, without height drop between units.
- Rated heating capacity test conditions: indoor 20°C DB, outdoor 7°C DB/6 °C WB; connection pipe length: 5m, without height drop between units.

2.2.8 Fresh air Processing Unit



Model			GMV-NX140P/A(X1.2)-K	GMV-NX224P/A(X2.0) -M	GMV-NX280P/A(X2.5) -M
Horse Power	HP		5	8	10
Cooling capacity	kW		14	22.4	28
Heating capacity	kW		10	16	20
Air volume	m ³ /h		1200	2000	2500
Static pressure (Pa)	Standard		150	200	200
	Optional		200	300	300
Cooling power input	W		360	740	760
Cooling current input	A		1.65	2.10	2.40
Heating power input	W		360	740	760
Heating current input	A		1.65	2.10	2.40
Minimum line current	A		2.1	2.6	3.0
Maximum fuse current	A		3.7	4.7	5.4
Sound pressure level	dB(A)		42	47	48
Power supply			220~240V 1phase~50Hz	380~415V 3N~50Hz	380~415V 3N~50Hz
Pipe diameter	Liquid pie	mm	Φ9.52	Φ9.52	Φ9.52
	Gas pipe	mm	Φ15.9	Φ19.05	Φ22.2
Drain pipe	Outer diameter × Wall thickness	mm	Φ25×2.5	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	1463×756×300	1500×1000×500	1500×1000×500
Net weight		kg	63.5	130	134

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Model			GMV-NX280P/A(X3.0) -M	GMV-NX450P/A(X4.0) -M
Horse Power	HP		10	16
Cooling capacity	kW		28	45
Heating capacity	kW		20	32
Air volume	m ³ /h		3000	4000
Static pressure (Pa)	Standard		200	200
	Optional		300	300
Cooling power input	W		1060	1240
Cooling current input	A		2.47	3.40
Heating power input	W		1060	1240
Heating current input	A		2.47	3.40
Minimum line current	A		3.1	4.3
Maximum fuse current	A		5.5	7.6
Sound pressure level	dB(A)		51	52
Power supply			380~415V 3N~50Hz	380~415V 3N~50Hz
Pipe diameter	Liquid pipe	mm	Φ9.52	Φ12.7
	Gas pipe	mm	Φ22.2	Φ28.6
Drain pipe	Outer diameter × Wall thickness	mm	Φ25×2.5	Φ25×2.5
Dimension	W×D×H	mm	1500×1000×500	1700×1100×650
Net weight		kg	134	208

NOTES:

- Rated cooling capacity test conditions: fresh air inlet 35°C DB/28°C WB; connection pipe length: 5m, without height drop between units; The default air outlet temperature of the unit is 18°C.
- Rated heating capacity test conditions: fresh air inlet 7°C DB/6°C WB; connection pipe length: 5m, without height drop between units; The default air outlet temperature of the unit is 22°C.

3 ELECTRICAL SPECIFICATIONS

3.1 Circuit Breaker and Wire Diameter Selection of GMV5 Series Units

Type	Combination Mode	Power Supply Specifications	Total Capacity of Circuit Breaker (A)	Minimum Sectional Area (mm ²) of General Grounding Wire	Total Recommended Leads (Sectional Area (mm ²) × Pieces)	Circuit Breaker Capacity (A) of Each Combination Module	Minimum Sectional Area (mm ²) of Grounding Wire of Each Combination Module	Recommended Leads (Sectional Area (mm ²) × Pieces) for Each Combination Module
GMV-224WM/B-X	GMV-224WM/B-X	380~415V 3N~ 50/60Hz	20	2.5	2.5×5	20	2.5	2.5×5
GMV-280WM/B-X	GMV-280WM/B-X	380~415V 3N~ 50/60Hz	25	2.5	2.5×5	25	2.5	2.5×5
GMV-335WM/B-X	GMV-335WM/B-X	380~415V 3N~ 50/60Hz	32	4.0	4.0×5	32	4.0	4.0×5
GMV-400WM/B-X	GMV-400WM/B-X	380~415V 3N~ 50/60Hz	40	6.0	6.0×5	40	6.0	6.0×5
GMV-450WM/B-X	GMV-450WM/B-X	380~415V 3N~ 50/60Hz	40	6.0	6.0×5	40	6.0	6.0×5
GMV-504WM/B-X	GMV-224WM/B-X + GMV-280WM/B-X	380~415V 3N~ 50/60Hz	40	6.0	6.0×5	20 + 25	2.5 + 2.5	2.5×5 + 2.5×5
GMV-560WM/B-X	GMV-280WM/B-X + GMV-280WM/B-X	380~415V 3N~ 50/60Hz	50	10.0	10.0×5	25 + 25	2.5 + 2.5	2.5×5 + 2.5×5
GMV-615WM/B-X	GMV-280WM/B-X + GMV-335WM/B-X	380~415V 3N~ 50/60Hz	50	10.0	10.0×5	25 + 32	2.5 + 4.0	2.5×5 + 4.0×5
GMV-680WM/B-X	GMV-280WM/B-X + GMV-400WM/B-X	380~415V 3N~ 50/60Hz	63	10.0	10.0×5	25 + 40	2.5 + 6.0	2.5×5 + 6.0×5
GMV-730WM/B-X	GMV-280WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	63	16.0	16.0×5	25 + 40	2.5 + 6.0	2.5×5 + 6.0×5
GMV-785WM/B-X	GMV-400WM/B-X + GMV-400WM/B-X	380~415V 3N~ 50/60Hz	80	16.0	16.0×5	40 + 40	6.0 + 6.0	6.0×5 + 6.0×5
GMV-850WM/B-X	GMV-400WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	80	16.0	16.0×5	40 + 40	6.0 + 6.0	6.0×5 + 6.0×5
GMV-900WM/B-X	GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	80	16.0	16.0×5	40 + 40	6.0 + 6.0	6.0×5 + 6.0×5
GMV-960WM/B-X	GMV-280WM/B-X + GMV-280WM/B-X + GMV-400WM/B-X	380~415V 3N~ 50/60Hz	80	16.0	25.0×3+ 16.0×2	25 + 25 + 40	2.5 + 2.5 + 6.0	2.5×5 + 2.5×5 + 6.0×5
GMV-1010WM/B-X	GMV-280WM/B-X + GMV-280WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	80	16.0	25.0×3+ 16.0×2	25 + 25 + 40	2.5 + 2.5 + 6.0	2.5×5 + 2.5×5 + 6.0×5
GMV-1065WM/B-X	GMV-280WM/B-X + GMV-400WM/B-X + GMV-400WM/B-X	380~415V 3N~ 50/60Hz	100	16.0	25.0×3+ 16.0×2	25 + 40 + 40	2.5 + 6.0 + 6.0	2.5×5 + 6.0×5 + 6.0×5
GMV-1130WM/B-X	GMV-280WM/B-X + GMV-400WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	100	16.0	25.0×3+ 16.0×2	25 + 40 + 40	2.5 + 6.0 + 6.0	2.5×5 + 6.0×5 + 6.0×5
GMV-1180WM/B-X	GMV-280WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	100	16.0	25.0×3+ 16.0×2	25 + 40 + 40	2.5 + 6.0 + 6.0	2.5×5 + 6.0×5 + 6.0×5

GMV-1235WM/B-X	GMV-400WM/B-X + GMV-400WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	35.0×3+ 25.0×2	40 + 40 + 40	6.0 + 6.0 + 6.0	6.0×5 + 6.0×5 + 6.0×5
GMV-1300WM/B-X	GMV-400WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	35.0×3+ 25.0×2	40 + 40 + 40	6.0 + 6.0 + 6.0	6.0×5 + 6.0×5 + 6.0×5
GMV-1350WM/B-X	GMV-450WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	35.0×3+ 25.0×2	40 + 40 + 40	6.0 + 6.0 + 6.0	6.0×5 + 6.0×5 + 6.0×5
GMV-1410WM/B-X	GMV-280WM/B-X + GMV-280WM/B-X + GMV-400WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	35.0×3+ 25.0×2	25 + 25 + 40 + 40	2.5 + 2.5 + 6.0 + 6.0	2.5×5 + 2.5×5 + 6.0×5 + 6.0×5
GMV-1460WM/B-X	GMV-280WM/B-X + GMV-280WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	35.0×3+ 25.0×2	25 + 25 + 40 + 40	2.5 + 2.5 + 6.0 + 6.0	2.5×5 + 2.5×5 + 6.0×5 + 6.0×5
GMV-1515WM/B-X	GMV-280WM/B-X + GMV-335WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	35.0×3+ 25.0×2	25 + 32 + 40 + 40	2.5 + 4.0 + 6.0 + 6.0	2.5×5 + 4.0×5 + 6.0×5 + 6.0×5
GMV-1580WM/B-X	GMV-280WM/B-X + GMV-400WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	125	25.0	50.0×3+ 25.0×2	25 + 40 + 40 + 40	2.5 + 6.0 + 6.0 + 6.0	2.5×5 + 6.0×5 + 6.0×5 + 6.0×5
GMV-1630WM/B-X	GMV-280WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	160	25.0	50.0×3+ 25.0×2	25 + 40 + 40 + 40	2.5 + 6.0 + 6.0 + 6.0	2.5×5 + 6.0×5 + 6.0×5 + 6.0×5
GMV-1685WM/B-X	GMV-335WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	160	25.0	50.0×3+ 25.0×2	32 + 40 + 40 + 40	4.0 + 6.0 + 6.0 + 6.0	4.0×5 + 6.0×5 + 6.0×5 + 6.0×5
GMV-1750WM/B-X	GMV-400WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	160	25.0	50.0×3+ 25.0×2	40 + 40 + 40 + 40	6.0 + 6.0 + 6.0 + 6.0	6.0×5 + 6.0×5 + 6.0×5 + 6.0×5
GMV-1800WM/B-X	GMV-450WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X + GMV-450WM/B-X	380~415V 3N~ 50/60Hz	160	25.0	50.0×3+ 25.0×2	40 + 40 + 40 + 40	6.0 + 6.0 + 6.0 + 6.0	6.0×5 + 6.0×5 + 6.0×5 + 6.0×5

NOTES:

- The circuit breaker and power cable specifications are selected according to the maximum unit power (maximum current).
- The power cable specifications are obtained under the condition that the multi-copper core cable (such as YJV copper-core XLPE insulated PVC sheathed power cable) is laid in the wire trough in an exposed manner (the ambient temperature of use is 40°C and the cable operating temperature is 90°C) (IEC60364-5-523). If the use condition is different, calculate and adjust the specification according to the corresponding national standard.
- The copper core cable must be used.
- The sectional area of lead applies to the maximum distance of 15m. If the distance exceeds 5m, the sectional area of lead must be increased accordingly to prevent burnout of the lead or a fire due to current overload.
- The circuit breaker specification is obtained under the condition that the ambient temperature is 40°C when the circuit breaker is operating. If the use condition is different, calculate and adjust the specification according to the instructions on circuit breaker specifications.
- The circuit breaker should provide the magnetic trip and thermal trip functions at the same time to ensure protection in the cases of short circuit and overload.

➔ 3.2 Circuit Breaker and Wire Diameter Selection of Indoor Unit

Selection of circuit breakers and power cables for connecting all the indoor units of the same system to the general power supply:

Total Current Capacity of Indoor Units	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Power Cable	Minimum Sectional Area (mm ²) of Grounding Wire
Less than 10A	10	1.0	1.0
16~10A	16	1.5	1.5
20~16A	20	2.5	2.5
32~20A	32	4.0	4.0
40~32A	40	6.0	6.0
50~40A	50	10.0	10.0
63~50A	63	16.0	16.0
80~63A	80	25.0	16.0
100~80A	100	35.0	16.0
125~100A	125	50.0	25.0

Selection of circuit breakers and power cables for separately installing each indoor unit:

Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-ND22PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND25PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND28PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND32PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND36PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND40PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND45PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND50PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND56PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND63PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND71PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND80PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND90PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND100PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND112PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND125PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND140PLS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3

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Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-ND22PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND25PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND28PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND32PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND36PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND40PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND45PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND50PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND56PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND63PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND72PL/B-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3

Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-ND56PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND63PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND71PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND80PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND90PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND100PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND112PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND125PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND140PHS/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND224PH/A-T	220-240V~50Hz/208-230V~60Hz	10	1.0	1.0×3
GMV-ND280PH/A-T	220-240V~50Hz/208-230V~60Hz	10	1.0	1.0×3

Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-ND28T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND36T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND45T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND50T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND56T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND63T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND71T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND80T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND90T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND100T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND112T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND125T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND140T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND160T/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3

Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-ND22TD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND28TD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND36TD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND45TD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND50TD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3

Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-ND28ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND36ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND50ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND63ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND71ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND90ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND112ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND125ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3
GMV-ND140ZD/A-T	220-240V~50Hz/208-230V~60Hz	6	1.0	1.0×3

Model	Power Supply	Circuit Breaker Capacity (A)	Minimum Sectional Area (mm ²) of Grounding Wire	Recommended Leads (Sectional Area (mm ²) × Pieces)
GMV-N22G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N28G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N36G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N45G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N50G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N56G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N63G/A3A-K	220-240V~50Hz	6	1.0	1.0×3
GMV-N72G/A3A-D	220-240V~50Hz	6	1.0	1.0×3

Electrical Specifications of VRF Fresh Air Processor:

Model	Power Supply	Air Switch capacity (A)	Minimum Sectional Area of Ground Wire(mm ²)	Minimum Sectional Area of Power Cord(mm ²)
GMV-NX140P/A(X1.2)-K	220-240V ~50Hz	6	1.0	1.0
GMV-NX224P/A(X2.0)-M	380-415V 3N ~50Hz	6	1.0	1.0
GMV-NX280P/A(X2.5)-M	380-415V 3N ~50Hz	6	1.0	1.0
GMV-NX280P/A(X3.0)-M	380-415V 3N ~50Hz	6	1.0	1.0
GMV-NX450P/A(X4.0)-M	380-415V 3N ~50Hz	6	1.0	1.0





























NOTES:

- a. The circuit breaker and power cable specifications are selected according to the maximum unit power (maximum current).
- b. The power cable specifications are obtained under the condition that the multi-copper core cable (such as YJV copper-core XLPE insulated PVC sheathed power cable) is laid in the wire trough in an exposed manner (the ambient temperature of use is 40°C and the cable operating temperature is 90°C) (IEC60364-5-523). If the use condition is different, calculate and adjust the specification according to the corresponding national standard.
- c. The circuit breaker specification in the above table is obtained under the condition that the ambient temperature is 40°C when the circuit breaker is operation. If the use condition is different, calculate and adjust the specification according to the instructions on circuit breaker specifications.
- d. A cut-off device is installed near the unit. The minimum space between levels of the cut-off device is 3 mm(it is required for both the indoor unit and outdoor unit).

4 COMBINATION MODE

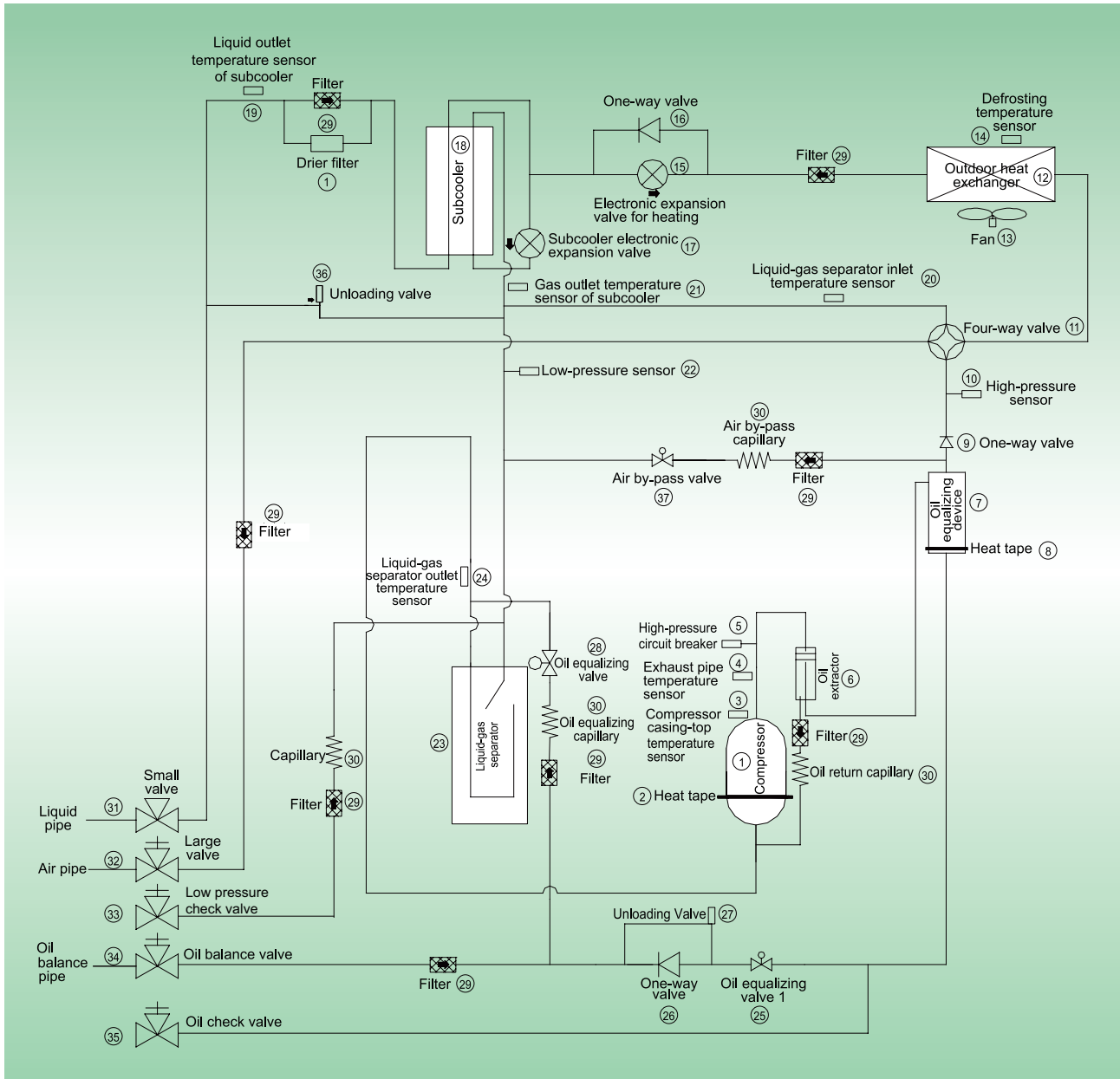
Model	GMV-224WM/B-X	GMV-280WM/B-X	GMV-335WM/B-X	GMV-400WM/B-X	GMV-450WM/B-X
GMV-224WM/B-X					
GMV-280WM/B-X					
GMV-335WM/B-X					
GMV-400WM/B-X					
GMV-450WM/B-X					
GMV-504WM/B-X					
GMV-560WM/B-X					
GMV-615WM/B-X					
GMV-680WM/B-X					
GMV-730WM/B-X					
GMV-785WM/B-X					
GMV-850WM/B-X					
GMV-900WM/B-X					
GMV-960WM/B-X					
GMV-1010WM/B-X					
GMV-1065WM/B-X					

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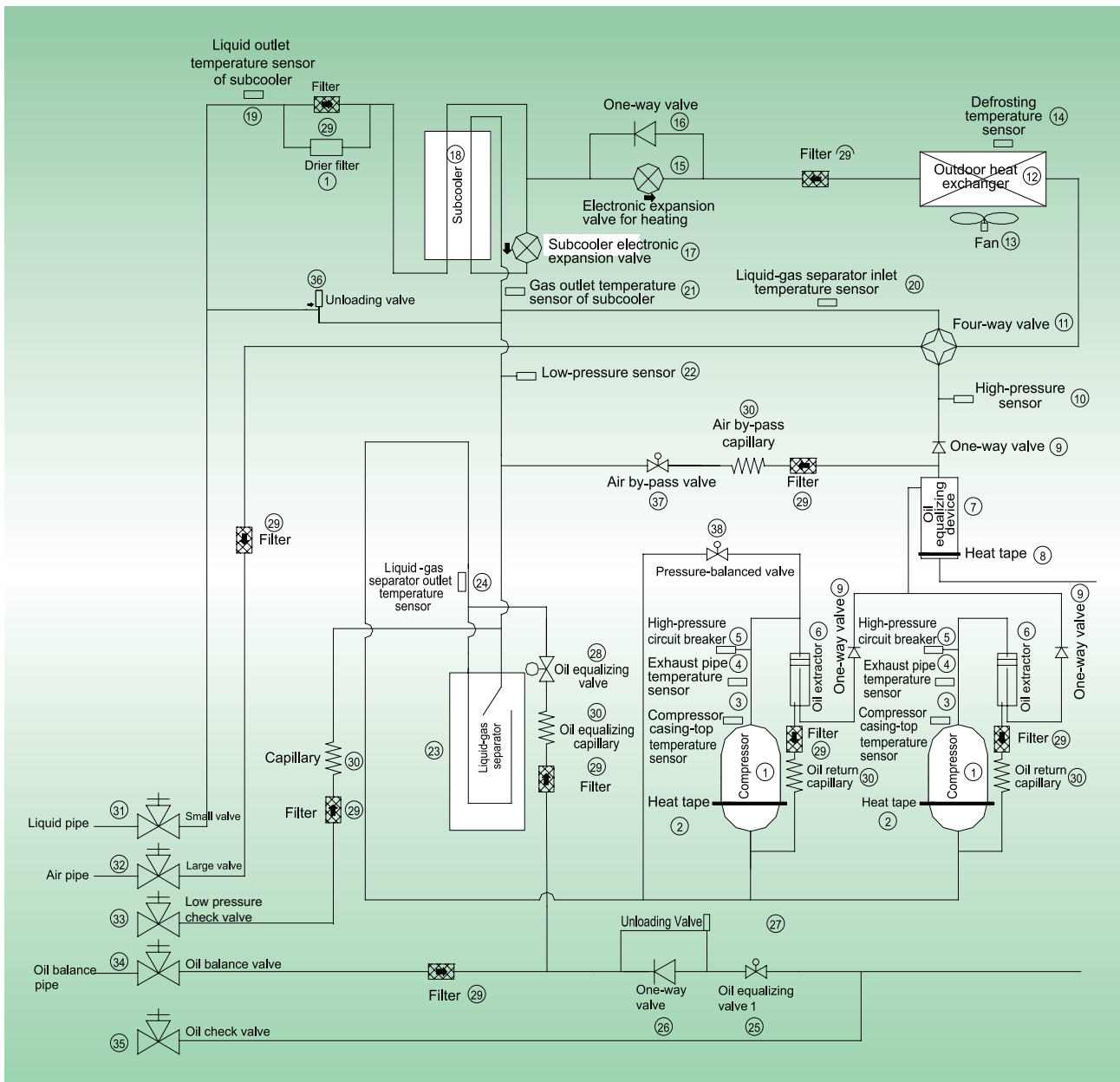
GMV-1130WM/B-X					
GMV-1180WM/B-X					
GMV-1235WM/B-X					
GMV-1300WM/B-X					
GMV-1350WM/B-X					
GMV-1410WM/B-X					
GMV-1460WM/B-X					
GMV-1515WM/B-X					
GMV-1580WM/B-X					
GMV-1630WM/B-X					
GMV-1685WM/B-X					
GMV-1750WM/B-X					
GMV-1800WM/B-X					

5 INTERNAL PIPING DESIGN OF THE UNITS

1. Piping diagrams of GMV-224WM/B-X, GMV-280WM/B-X, and GMV-335WM/B-X:



2. Piping diagrams of GMV-400WM/B-X and GMV-450WM/B-X:



NOTE: The pressure balance valve is configured for the two compressors modules only.

6 UNIT CAPACITY CORRECTION

6.1 Correction of Capacity Along with Ambient Temperature and Configuration Ratio

- Cooling Capacity Calculation Method
- GMV-224WM/B-X

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

Combination	Outdoor air temp (°C DB)	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	
		20.0°C DB		23.0°C DB		26.0°C DB		27.0°C DB		28.0°C DB		30.0°C DB		32.0°C DB	
		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
135%	-5	19.7	2.30	23.4	2.80	27.2	2.83	28.2	2.85	28.8	2.86	29.5	2.90	30.4	2.93
	0	19.7	2.30	23.4	2.81	27.2	2.84	28.2	2.85	28.8	2.87	29.5	2.90	30.4	2.93
	4	19.7	2.31	23.4	2.82	27.2	2.85	28.2	2.87	28.8	2.88	29.5	2.91	30.4	2.95
	7	19.7	2.36	23.4	2.87	27.2	2.90	28.2	2.92	28.8	2.93	29.3	2.97	30.0	3.00
	10	19.7	2.40	23.4	2.93	27.2	3.48	28.2	3.56	28.6	3.49	29.3	3.34	30.0	3.19
	12	19.7	2.44	23.4	2.99	27.2	3.55	27.8	3.54	28.2	3.47	28.9	3.32	29.6	3.27
	14	19.7	2.49	23.4	3.04	27.1	3.60	27.5	3.53	27.8	3.45	28.6	3.42	29.3	3.46
	16	19.7	2.53	23.4	3.11	26.8	3.58	27.1	3.55	27.4	3.57	28.2	3.60	28.9	3.64
	18	19.7	2.58	23.4	3.17	26.4	3.72	26.7	3.74	27.1	3.76	27.8	3.79	28.6	3.83
	20	19.7	2.64	23.4	3.37	26.0	3.90	26.4	3.92	26.7	3.94	27.4	3.97	28.2	4.02
	21	19.7	2.71	23.4	3.49	25.8	3.99	26.2	4.01	26.6	4.03	27.3	4.07	28.0	4.11
	23	19.7	2.90	23.4	3.74	25.5	4.17	25.8	4.19	26.2	4.21	26.9	4.26	27.6	4.30
	25	19.7	3.10	23.4	4.01	25.1	4.35	25.5	4.37	25.8	4.40	26.6	4.44	27.3	4.49
	27	19.7	3.31	23.4	4.29	24.8	3.83	25.1	4.56	25.4	4.58	26.2	4.63	26.9	4.68
	29	19.7	3.53	23.4	4.58	24.4	4.72	24.7	4.75	25.1	4.77	25.8	4.82	26.6	4.87
	31	19.7	3.77	23.4	4.85	24.0	4.91	24.4	4.94	24.7	4.96	25.4	5.01	26.2	5.07
	33	19.7	4.02	23.0	5.03	23.7	5.08	24.0	5.12	24.4	5.15	25.1	5.20	25.8	5.26
	35	19.7	4.28	22.6	5.22	23.3	5.28	23.7	5.31	24.0	5.33	24.7	5.40	25.4	5.45
	37	19.7	4.56	22.2	5.40	23.0	5.47	23.3	5.50	23.7	5.53	24.3	5.59	25.0	5.66
	39	19.7	4.85	21.8	5.59	22.6	5.65	23.0	5.69	23.3	5.72	24.0	5.78	24.7	5.85
41	18.6	5.40	21.4	6.57	22.1	6.65	22.5	6.16	22.8	6.19	23.5	6.26	24.2	6.33	
44	17.3	5.87	20.3	7.15	21.1	7.39	21.5	6.95	21.9	6.67	22.6	6.59	23.4	6.65	
47	16.3	7.81	19.6	9.51	20.4	7.76	20.8	7.06	21.1	7.10	21.9	7.07	22.6	7.14	
50	15.0	7.67	17.6	9.34	18.2	8.18	18.5	8.17	18.8	7.79	19.5	7.66	20.4	7.53	
52	11.3	6.47	13.1	7.88	13.6	6.97	14.0	6.95	14.4	6.83	15.6	6.75	16.5	6.54	

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120%	-5	18.2	2.05	22.4	2.65	26.7	2.82	27.7	2.83	28.3	2.85	28.9	2.88	29.7	2.91
	0	18.2	2.05	22.4	2.66	26.7	2.82	27.7	2.84	28.3	2.85	28.9	2.88	29.7	2.91
	4	18.2	2.06	22.4	2.66	26.7	2.83	27.7	2.85	28.3	2.86	28.9	2.89	29.7	2.92
	7	18.2	2.10	22.4	2.71	26.7	2.88	27.7	2.90	28.3	2.91	28.7	2.95	29.3	2.98
	10	18.2	2.19	21.6	2.67	25.1	3.18	26.9	3.43	28.2	3.58	28.8	3.44	29.4	3.31
	12	18.2	2.23	21.6	2.72	25.1	3.24	26.9	3.50	27.8	3.56	28.4	3.43	29.0	3.29
	14	18.2	2.27	21.6	2.78	25.1	3.30	26.9	3.57	27.4	3.54	28.1	3.41	28.7	3.43
	16	18.2	2.31	21.6	2.83	25.1	3.36	26.7	3.60	27.0	3.55	27.7	3.58	28.3	3.61
	18	18.2	2.36	21.6	2.89	25.1	3.48	26.3	3.72	26.6	3.73	27.3	3.76	28.0	3.80
	20	18.2	2.40	21.6	3.00	25.1	3.74	26.0	3.90	26.3	3.91	27.0	3.95	27.6	3.98
	21	18.2	2.43	21.6	3.11	25.1	3.88	25.8	3.99	26.1	4.00	26.8	4.04	27.4	4.08
	23	18.2	2.59	21.6	3.33	25.1	4.15	25.4	4.16	25.8	4.18	26.4	4.23	27.0	4.26
	25	18.2	2.77	21.6	3.56	24.7	4.33	25.0	4.35	25.4	4.37	26.1	4.41	26.7	4.45
	27	18.2	2.96	21.6	3.81	24.4	4.51	24.7	4.54	25.0	4.56	25.7	4.60	26.3	4.64
	29	18.2	3.15	21.6	4.07	24.0	4.69	24.3	4.72	24.6	4.74	25.3	4.79	26.0	4.83
	31	18.2	3.36	21.6	4.34	23.7	4.88	24.0	4.90	24.3	4.93	25.0	4.98	25.6	5.03
	33	18.2	3.58	21.6	4.63	23.3	5.06	23.6	5.09	23.9	5.11	24.6	5.17	25.2	5.22
	35	18.2	3.81	21.6	4.94	22.9	5.24	23.2	5.27	23.6	5.30	24.2	5.36	24.9	5.41
	37	18.2	4.06	21.6	5.26	22.6	5.43	22.9	5.46	23.2	5.49	23.8	5.54	24.5	5.61
	39	18.2	4.32	21.5	5.55	22.2	5.62	22.5	5.65	22.8	5.68	23.5	5.74	24.2	5.80
41	17.2	4.80	20.5	6.22	21.7	6.61	22.1	6.11	22.4	6.15	23.1	6.21	23.7	6.28	
44	16.0	5.22	19.4	6.76	20.7	7.34	21.1	6.91	21.5	6.62	22.2	6.53	22.9	6.60	
47	15.1	6.95	18.8	9.00	20.0	7.71	20.4	7.01	20.8	7.05	21.5	7.02	22.1	7.09	
50	13.8	6.83	16.8	8.83	17.9	8.13	18.2	8.12	18.5	7.74	19.1	7.61	19.9	7.47	
52	10.5	5.76	12.5	7.45	13.4	6.92	13.7	6.91	14.2	6.78	15.3	6.69	16.2	6.49	
110%	-5	16.6	1.81	20.6	2.33	26.4	2.80	27.2	2.81	27.7	2.83	28.3	2.85	29.1	2.88
	0	16.6	1.81	20.6	2.33	26.4	2.80	27.2	2.82	27.7	2.83	28.3	2.86	29.1	2.89
	4	16.6	1.82	20.6	2.34	26.4	2.81	27.2	2.83	27.7	2.84	28.3	2.87	29.1	2.90
	7	16.6	1.85	20.6	2.39	26.4	2.86	27.2	2.88	27.7	2.90	28.0	2.92	28.7	2.95
	10	16.6	1.98	19.8	2.42	23.0	2.87	24.6	3.11	26.2	3.34	28.2	3.55	28.9	3.43
	12	16.6	2.03	19.8	2.47	23.0	2.93	24.6	3.17	26.2	3.41	27.9	3.53	28.5	3.41
	14	16.6	2.06	19.8	2.51	23.0	2.99	24.6	3.22	26.2	3.47	27.5	3.53	28.2	3.40
	16	16.6	2.10	19.8	2.56	23.0	3.04	24.6	3.29	26.2	3.54	27.2	3.55	27.8	3.59
	18	16.6	2.14	19.8	2.61	23.0	3.11	24.6	3.38	26.2	3.71	26.8	3.74	27.4	3.77
	20	16.6	2.18	19.8	2.66	23.0	3.29	24.6	3.63	25.8	3.89	26.5	3.92	27.0	3.95
	21	16.6	2.20	19.8	2.74	23.0	3.41	24.6	3.76	25.7	3.98	26.2	4.01	26.9	4.04
	23	16.6	2.31	19.8	2.94	23.0	3.65	24.6	4.04	25.3	4.16	25.9	4.20	26.5	4.23
	25	16.6	2.45	19.8	3.14	23.0	3.90	24.6	4.33	25.0	4.34	25.5	4.38	26.2	4.42
	27	16.6	2.62	19.8	3.36	23.0	4.18	24.2	4.51	24.6	4.52	25.2	4.56	25.8	4.61
	29	16.6	2.80	19.8	3.58	23.0	4.47	23.9	4.69	24.2	4.71	24.8	4.75	25.4	4.79
	31	16.6	2.98	19.8	3.82	23.0	4.77	23.5	4.87	23.8	4.89	24.5	4.94	25.0	4.98
	33	16.6	3.17	19.8	4.07	22.9	5.03	23.2	5.05	23.5	5.08	24.1	5.12	24.7	5.17
	35	16.6	3.37	19.8	4.34	22.6	5.21	22.8	5.24	23.1	5.26	23.7	5.31	24.3	5.36
	37	16.6	3.59	19.8	4.62	22.2	5.40	22.5	5.42	22.7	5.45	23.4	5.50	23.9	5.55
	39	16.6	3.81	19.8	4.92	21.8	5.58	22.1	5.61	22.4	5.64	23.0	5.69	23.6	5.75
41	15.7	4.25	18.8	5.47	21.4	6.56	21.7	6.07	22.0	6.11	22.5	6.16	23.2	6.22	
44	14.6	4.62	17.9	5.94	20.4	7.29	20.7	6.86	21.1	6.58	21.7	6.48	22.4	6.54	
47	13.8	6.15	17.3	7.91	19.7	7.66	20.0	6.96	20.3	7.00	21.0	6.96	21.6	7.03	
50	12.6	6.04	15.5	7.77	17.6	8.07	17.9	8.06	18.1	7.69	18.7	7.55	19.5	7.40	
52	9.6	5.09	11.5	6.55	13.2	6.88	13.5	6.86	13.9	6.74	14.9	6.64	15.8	6.44	

100%	-5	15.1	1.58	18.7	2.03	24.5	2.53	26.7	2.79	27.2	2.81	27.7	2.83	28.4	2.86
	0	15.1	1.59	18.7	2.03	24.5	2.53	26.7	2.80	27.2	2.81	27.7	2.84	28.4	2.86
	4	15.1	1.59	18.7	2.04	24.5	2.54	26.7	2.81	27.2	2.82	27.7	2.85	28.4	2.87
	7	15.1	1.62	18.7	2.08	24.5	2.59	26.7	2.86	27.2	2.88	27.5	2.90	28.0	2.93
	10	15.1	1.79	18.0	2.18	21.0	2.58	22.4	2.78	23.8	3.01	26.8	3.40	28.3	3.54
	12	15.1	1.82	18.0	2.21	21.0	2.61	22.4	2.82	23.8	3.06	26.8	3.46	27.9	3.51
	14	15.1	1.85	18.0	2.25	21.0	2.66	22.4	2.87	23.8	3.12	26.8	3.52	27.6	3.48
	16	15.1	1.89	18.0	2.30	21.0	2.72	22.4	2.94	23.8	3.19	26.7	3.60	27.2	3.56
	18	15.1	1.93	18.0	2.35	21.0	2.77	22.4	2.99	23.8	3.25	26.3	3.67	26.9	3.73
	20	15.1	1.96	18.0	2.39	21.0	2.86	22.4	3.15	23.8	3.46	25.9	3.86	26.5	3.92
	21	15.1	1.98	18.0	2.41	21.0	2.96	22.4	3.26	23.8	3.58	25.8	4.00	26.3	4.03
	23	15.1	2.03	18.0	2.57	21.0	3.18	22.4	3.50	23.8	3.85	25.4	4.23	25.9	4.27
	25	15.1	2.16	18.0	2.74	21.0	3.39	22.4	3.73	23.8	4.12	25.0	4.38	25.6	4.42
	27	15.1	2.31	18.0	2.93	21.0	3.63	22.4	4.00	23.8	4.42	24.6	4.54	25.2	4.58
	29	15.1	2.45	18.0	3.13	21.0	3.88	22.4	4.28	23.8	4.68	24.3	4.75	24.9	4.80
	31	15.1	2.61	18.0	3.33	21.0	4.14	22.4	4.61	23.5	4.87	23.7	4.95	24.5	4.99
	33	15.1	2.77	18.0	3.54	21.0	4.42	22.4	4.88	23.0	5.04	23.6	5.09	24.1	5.14
	35	15.1	2.95	18.0	3.78	21.0	4.71	22.4	5.20	22.6	5.23	23.2	5.27	23.7	5.32
	37	15.1	3.14	18.0	4.02	21.0	5.01	22.0	5.39	22.4	5.42	22.8	5.45	23.4	5.50
	39	15.1	3.34	18.0	4.28	21.0	5.34	21.7	5.57	21.8	5.59	22.6	5.63	22.8	5.68
41	14.3	3.72	17.1	4.76	19.9	5.93	21.3	6.03	21.5	6.06	22.1	6.12	22.6	6.17	
44	13.3	4.04	16.2	5.17	19.0	6.59	20.4	6.81	20.7	6.53	21.2	6.43	21.8	6.49	
47	12.5	5.38	15.7	6.88	18.3	6.92	19.7	6.92	19.9	6.95	20.5	6.91	21.1	6.97	
50	11.5	5.28	14.0	6.76	16.4	7.30	17.5	8.01	17.8	7.63	18.3	7.49	19.0	7.34	
52	8.7	4.45	10.4	5.70	12.3	6.21	13.2	6.81	13.6	6.69	14.6	6.59	15.4	6.39	
90%	-5	13.6	1.38	16.8	1.75	22.0	2.16	24.0	2.39	25.7	2.62	27.1	2.81	27.7	2.83
	0	13.6	1.38	16.8	1.75	22.0	2.16	24.0	2.39	25.7	2.63	27.1	2.81	27.7	2.84
	4	13.6	1.39	16.8	1.76	22.0	2.17	24.0	2.40	25.7	2.64	27.1	2.82	27.7	2.85
	7	13.6	1.41	16.8	1.79	22.0	2.21	24.0	2.44	25.7	2.69	26.9	2.88	27.4	2.90
	10	13.6	1.57	16.2	1.88	18.9	2.20	20.2	2.48	21.5	2.64	24.1	3.03	26.7	3.43
	12	13.6	1.59	16.2	1.91	18.9	2.23	20.2	2.51	21.5	2.69	24.1	3.08	26.7	3.47
	14	13.6	1.61	16.2	1.94	18.9	2.27	20.2	2.55	21.5	2.74	24.1	3.13	26.7	3.53
	16	13.6	1.65	16.2	1.98	18.9	2.32	20.2	2.61	21.5	2.80	24.1	3.20	26.6	3.60
	18	13.6	1.69	16.2	2.03	18.9	2.37	20.2	2.66	21.5	2.85	24.1	3.28	26.4	3.73
	20	13.6	1.71	16.2	2.06	18.9	2.44	20.2	2.71	21.5	2.97	24.1	3.52	25.9	3.88
	21	13.6	1.73	16.2	2.08	18.9	2.53	20.2	2.80	21.5	3.08	24.1	3.64	25.8	3.97
	23	13.6	1.77	16.2	2.22	18.9	2.72	20.2	3.02	21.5	3.29	24.1	3.91	25.4	4.18
	25	13.6	1.89	16.2	2.36	18.9	2.89	20.2	3.22	21.5	3.52	24.1	4.18	25.0	4.35
	27	13.6	2.02	16.2	2.52	18.9	3.10	20.2	3.43	21.5	3.77	24.1	4.46	24.6	4.54
	29	13.6	2.14	16.2	2.70	18.9	3.32	20.2	3.67	21.5	4.02	23.8	4.68	24.3	4.72
	31	13.6	2.27	16.2	2.87	18.9	3.54	20.2	3.92	21.5	4.29	23.4	4.85	23.9	4.91
	33	13.6	2.42	16.2	3.06	18.9	3.77	20.2	4.17	21.5	4.57	23.1	5.05	23.6	5.09
	35	13.6	2.57	16.2	3.26	18.9	4.02	20.2	4.44	21.5	4.89	22.7	5.23	23.2	5.28
	37	13.6	2.74	16.2	3.47	18.9	4.28	19.8	4.60	21.5	5.23	22.3	5.42	22.9	5.40
	39	13.6	2.92	16.2	3.69	18.9	4.56	19.5	4.75	21.5	5.54	22.0	5.62	22.5	5.60
41	12.9	3.24	15.4	4.10	17.9	5.07	19.2	5.15	20.4	5.67	21.6	6.06	22.1	6.12	
44	12.0	3.52	14.6	4.46	17.1	5.63	18.3	5.82	19.6	6.11	20.8	6.38	21.3	6.44	
47	11.3	4.69	14.1	5.94	16.5	5.91	17.7	5.91	18.9	6.50	20.1	6.85	20.6	6.91	
50	10.3	4.60	12.6	5.83	14.7	6.23	15.8	6.84	16.8	7.13	17.9	7.42	18.6	7.28	
52	7.8	3.88	9.4	4.92	11.0	5.31	11.9	5.82	12.9	6.25	14.3	6.54	15.1	6.33	

GMV5 DC Inverter VRF Units Technical Sales Guide

80%	-5	12.1	1.19	15.0	1.47	19.6	1.83	21.4	2.01	22.8	2.20	25.6	2.61	27.1	2.80
	0	12.1	1.20	15.0	1.47	19.6	1.83	21.4	2.02	22.8	2.21	25.6	2.62	27.1	2.80
	4	12.1	1.20	15.0	1.48	19.6	1.84	21.4	2.03	22.8	2.21	25.6	2.63	27.1	2.81
	7	12.1	1.22	15.0	1.51	19.6	1.87	21.4	2.06	22.8	2.25	25.4	2.68	26.7	2.87
	10	12.1	1.42	14.4	1.70	16.8	2.00	17.9	2.16	19.1	2.31	21.4	2.64	23.8	3.07
	12	12.1	1.44	14.4	1.73	16.8	2.04	17.9	2.20	19.1	2.36	21.4	2.69	23.8	3.04
	14	12.1	1.47	14.4	1.77	16.8	2.07	17.9	2.24	19.1	2.40	21.4	2.73	23.8	3.11
	16	12.1	1.49	14.4	1.79	16.8	2.12	17.9	2.28	19.1	2.44	21.4	2.79	23.8	3.22
	18	12.1	1.52	14.4	1.83	16.8	2.16	17.9	2.33	19.1	2.48	21.4	2.86	23.8	3.45
	20	12.1	1.55	14.4	1.86	16.8	2.20	17.9	2.37	19.1	2.54	21.4	2.96	23.8	3.57
	21	12.1	1.56	14.4	1.88	16.8	2.22	17.9	2.40	19.1	2.60	21.4	3.07	23.8	3.83
	23	12.1	1.59	14.4	1.92	16.8	2.33	17.9	2.55	19.1	2.78	21.4	3.28	23.8	4.09
	25	12.1	1.64	14.4	2.04	16.8	2.49	17.9	2.73	19.1	2.96	21.4	3.51	23.8	4.37
	27	12.1	1.75	14.4	2.17	16.8	2.65	17.9	2.91	19.1	3.18	21.4	3.75	23.8	4.52
	29	12.1	1.86	14.4	2.31	16.8	2.83	17.9	3.10	19.0	3.39	21.4	4.00	23.8	4.68
	31	12.1	1.97	14.4	2.46	16.8	3.01	17.9	3.30	19.0	3.61	21.4	4.27	23.4	4.85
	33	12.1	2.10	14.4	2.74	16.8	3.20	17.9	3.52	19.0	3.85	21.4	4.56	23.0	5.03
	35	12.1	2.22	14.4	2.74	16.8	3.41	17.9	3.75	19.0	4.10	21.4	4.87	22.6	5.21
	37	12.1	2.36	14.4	2.95	16.8	3.62	17.6	3.99	19.0	4.37	21.4	5.18	22.3	5.41
	39	12.1	2.50	14.4	3.13	16.8	3.86	17.4	4.25	19.0	4.65	21.4	5.52	21.9	5.61
41	11.4	2.80	13.7	3.45	15.9	4.29	17.0	4.35	18.1	4.75	20.4	5.64	21.6	6.05	
44	10.6	3.04	13.0	3.76	15.2	4.77	16.3	4.91	17.4	5.12	19.6	5.94	20.8	6.36	
47	10.0	4.05	12.5	5.00	14.7	5.01	15.7	4.99	16.7	5.45	19.0	6.37	20.1	6.83	
50	9.2	3.98	11.2	4.91	13.1	5.28	14.0	5.78	14.9	5.98	16.9	6.91	18.1	7.19	
52	7.0	3.36	8.4	4.14	9.8	4.50	10.6	4.91	11.4	5.25	13.5	6.08	14.7	6.26	
70%	-5	10.6	1.02	13.1	1.26	17.1	1.52	18.7	1.67	20.0	1.82	22.4	2.15	24.9	2.50
	0	10.6	1.02	13.1	1.26	17.1	1.53	18.7	1.67	20.0	1.83	22.4	2.15	24.9	2.50
	4	10.6	1.02	13.1	1.26	17.1	1.53	18.7	1.68	20.0	1.83	22.4	2.16	24.9	2.51
	7	10.6	1.04	13.1	1.29	17.1	1.56	18.7	1.71	20.0	1.87	22.2	2.20	24.5	2.56
	10	10.6	1.25	12.6	1.49	14.7	1.73	15.7	1.86	16.7	2.00	18.8	2.27	20.8	2.55
	12	10.6	1.27	12.6	1.51	14.7	1.77	15.7	1.90	16.7	2.03	18.8	2.31	20.8	2.60
	14	10.6	1.29	12.6	1.54	14.7	1.79	15.7	1.93	16.7	2.07	18.8	2.36	20.8	2.65
	16	10.6	1.31	12.6	1.56	14.7	1.83	15.7	1.97	16.7	2.11	18.8	2.40	20.8	2.70
	18	10.6	1.33	12.6	1.59	14.7	1.86	15.7	2.00	16.7	2.15	18.8	2.45	20.8	2.75
	20	10.6	1.35	12.6	1.62	14.7	1.90	15.7	2.04	16.7	2.19	18.8	2.50	20.8	2.83
	21	10.6	1.37	12.6	1.63	14.7	1.91	15.7	2.06	16.7	2.21	18.8	2.52	20.8	2.93
	23	10.6	1.39	12.6	1.66	14.7	1.96	15.7	2.13	16.7	2.32	18.8	2.71	20.8	3.14
	25	10.6	1.42	12.6	1.73	14.7	2.08	15.7	2.28	16.7	2.47	18.8	2.90	20.8	3.36
	27	10.6	1.50	12.6	1.84	14.7	2.22	15.7	2.43	16.7	2.64	18.8	3.10	20.8	3.59
	29	10.6	1.59	12.6	1.96	14.7	2.36	15.7	2.59	16.7	2.81	18.8	3.30	20.8	3.83
	31	10.6	1.68	12.6	2.07	14.7	2.52	15.7	2.75	16.7	2.99	18.8	3.52	20.8	4.09
	33	10.6	1.79	12.6	2.21	14.7	2.68	15.7	2.92	16.7	3.19	18.8	3.75	20.8	4.36
	35	10.6	1.89	12.6	2.34	14.7	2.84	15.7	3.11	16.7	3.39	18.8	4.00	20.8	4.65
	37	10.6	2.00	12.6	2.48	14.7	3.02	15.4	3.31	16.7	3.61	18.8	4.26	20.8	4.95
	39	10.6	2.12	12.6	2.63	14.7	3.20	15.2	3.51	16.7	3.83	18.8	4.52	20.8	5.27
41	10.0	2.38	12.0	2.95	13.9	3.58	14.9	3.61	15.9	3.94	17.9	4.64	19.8	5.39	
44	9.3	2.59	11.3	3.21	13.3	3.97	14.3	4.08	15.2	4.24	17.2	4.87	19.1	5.67	
47	8.8	3.45	11.0	4.27	12.8	4.17	13.8	4.14	14.7	4.51	16.6	5.23	18.5	6.09	
50	8.0	3.39	9.8	4.19	11.5	4.40	12.3	4.79	13.1	4.95	14.8	5.67	16.6	6.41	
52	6.1	2.86	7.3	3.54	8.6	3.75	9.3	4.08	10.0	4.34	11.8	4.99	13.5	5.58	

60%	-5	9.1	0.85	11.2	1.04	14.7	1.25	16.0	1.36	17.2	1.48	19.2	1.73	21.3	2.00
	0	9.1	0.86	11.2	1.04	14.7	1.25	16.0	1.37	17.2	1.48	19.2	1.73	21.3	2.00
	4	9.1	0.86	11.2	1.05	14.7	1.26	16.0	1.37	17.2	1.49	19.2	1.74	21.3	2.01
	7	9.1	0.88	11.2	1.07	14.7	1.28	16.0	1.40	17.2	1.52	19.0	1.77	21.0	2.04
	10	9.1	1.09	10.8	1.28	12.6	1.48	13.4	1.58	14.3	1.69	16.1	1.91	17.8	2.15
	12	9.1	1.11	10.8	1.30	12.6	1.51	13.4	1.61	14.3	1.72	16.1	1.95	17.8	2.18
	14	9.1	1.12	10.8	1.32	12.6	1.53	13.4	1.64	14.3	1.75	16.1	1.98	17.8	2.22
	16	9.1	1.14	10.8	1.34	12.6	1.56	13.4	1.67	14.3	1.78	16.1	2.02	17.8	2.26
	18	9.1	1.16	10.8	1.36	12.6	1.58	13.4	1.70	14.3	1.82	16.1	2.05	17.8	2.31
	20	9.1	1.17	10.8	1.39	12.6	1.61	13.4	1.73	14.3	1.85	16.1	2.10	17.8	2.36
	21	9.1	1.18	10.8	1.39	12.6	1.63	13.4	1.75	14.3	1.86	16.1	2.12	17.8	2.38
	23	9.1	1.20	10.8	1.42	12.6	1.65	13.4	1.78	14.3	1.90	16.1	2.20	17.8	2.53
	25	9.1	1.22	10.8	1.45	12.6	1.72	13.4	1.86	14.3	2.02	16.1	2.35	17.8	2.70
	27	9.1	1.27	10.8	1.54	12.6	1.83	13.4	1.99	14.3	2.15	16.1	2.50	17.8	2.88
	29	9.1	1.34	10.8	1.63	12.6	1.95	13.4	2.12	14.3	2.29	16.1	2.67	17.8	3.08
	31	9.1	1.42	10.8	1.73	12.6	2.07	13.4	2.25	14.3	2.44	16.1	2.84	17.8	3.27
	33	9.1	1.50	10.8	1.83	12.6	2.19	13.4	2.39	14.3	2.59	16.1	3.02	17.8	3.49
	35	9.1	1.59	10.8	1.94	12.6	2.33	13.4	2.54	14.3	2.75	16.1	3.22	17.8	3.72
	37	9.1	1.68	10.8	2.05	12.6	2.47	13.2	2.69	14.3	2.92	16.1	3.42	17.8	3.95
	39	9.1	1.77	10.8	2.17	12.6	2.61	13.0	2.85	14.3	3.11	16.1	3.63	17.8	4.21
41	8.6	2.01	10.3	2.45	11.9	2.93	12.8	2.94	13.6	3.20	15.3	3.73	17.0	4.31	
44	8.0	2.18	9.7	2.66	11.4	3.26	12.2	3.32	13.1	3.44	14.7	3.93	16.4	4.53	
47	7.5	2.90	9.4	3.54	11.0	3.42	11.8	3.38	12.6	3.66	14.2	4.22	15.9	4.87	
50	6.9	2.85	8.4	3.48	9.8	3.61	10.5	3.91	11.2	4.02	12.7	4.57	14.3	5.13	
52	5.2	2.40	6.3	2.93	7.4	3.07	7.9	3.32	8.6	3.53	10.1	4.02	11.6	4.46	
50%	-5	7.6	0.71	9.4	0.85	12.2	1.00	13.4	1.08	14.3	1.17	16.0	1.36	17.8	1.55
	0	7.6	0.71	9.4	0.85	12.2	1.00	13.4	1.09	14.3	1.17	16.0	1.36	17.8	1.55
	4	7.6	0.71	9.4	0.85	12.2	1.01	13.4	1.09	14.3	1.18	16.0	1.36	17.8	1.56
	7	7.6	0.72	9.4	0.87	12.2	1.03	13.4	1.11	14.3	1.20	15.9	1.39	17.5	1.59
	10	7.6	0.94	9.0	1.09	10.5	1.24	11.2	1.32	11.9	1.40	13.4	1.58	14.9	1.76
	12	7.6	0.95	9.0	1.10	10.5	1.26	11.2	1.34	11.9	1.43	13.4	1.61	14.9	1.79
	14	7.6	0.96	9.0	1.11	10.5	1.28	11.2	1.37	11.9	1.45	13.4	1.63	14.9	1.82
	16	7.6	0.97	9.0	1.13	10.5	1.30	11.2	1.39	11.9	1.47	13.4	1.66	14.9	1.85
	18	7.6	0.99	9.0	1.15	10.5	1.32	11.2	1.41	11.9	1.50	13.4	1.69	14.9	1.89
	20	7.6	1.00	9.0	1.16	10.5	1.34	11.2	1.44	11.9	1.53	13.4	1.72	14.9	1.92
	21	7.6	1.01	9.0	1.18	10.5	1.35	11.2	1.44	11.9	1.54	13.4	1.74	14.9	1.94
	23	7.6	1.02	9.0	1.19	10.5	1.37	11.2	1.47	11.9	1.57	13.4	1.77	14.9	1.98
	25	7.6	1.04	9.0	1.21	10.5	1.40	11.2	1.50	11.9	1.62	13.4	1.86	14.9	2.12
	27	7.6	1.06	9.0	1.26	10.5	1.48	11.2	1.60	11.9	1.72	13.4	1.98	14.9	2.26
	29	7.6	1.11	9.0	1.33	10.5	1.57	11.2	1.70	11.9	1.83	13.4	2.10	14.9	2.40
	31	7.6	1.18	9.0	1.41	10.5	1.68	11.2	1.80	11.9	1.94	13.4	2.24	14.9	2.56
	33	7.6	1.25	9.0	1.49	10.5	1.77	11.2	1.91	11.9	2.06	13.4	2.38	14.9	2.72
	35	7.6	1.32	9.0	1.58	10.5	1.86	11.2	2.02	11.9	2.18	13.4	2.52	14.9	2.89
	37	7.6	1.39	9.0	1.67	10.5	1.98	11.0	2.14	11.9	2.31	13.4	2.68	14.9	3.07
	39	7.6	1.47	9.0	1.76	10.5	2.09	10.9	2.26	11.9	2.45	13.4	2.84	14.9	3.26
41	7.1	1.66	8.5	1.99	10.0	2.35	10.6	2.34	11.3	2.53	12.8	2.93	14.2	3.35	
44	6.7	1.81	8.1	2.16	9.5	2.61	10.2	2.64	10.8	2.73	12.3	3.08	13.7	3.52	
47	6.3	2.40	7.8	2.88	9.2	2.74	9.8	2.69	10.5	2.90	11.9	3.31	13.2	3.78	
50	5.7	2.36	7.0	2.82	8.2	2.89	8.8	3.11	9.3	3.18	10.6	3.58	11.9	3.99	
52	4.4	1.99	5.2	2.38	6.1	2.46	6.6	2.64	7.1	2.79	8.4	3.15	9.7	3.47	

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GMV-280WM/B-X

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

Combination	Outdoor air temp. (°CDB)	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20.0°CDB		23.0°CDB		26.0°CDB		27.0°CDB		28.0°CDB		30.0°CDB		32.0°CDB	
		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
135%	-5	20.6	3.10	25.3	3.77	30.0	3.82	31.3	3.84	31.7	3.86	32.6	3.90	33.5	3.94
	0	21.6	3.10	26.3	3.78	31.0	3.82	32.3	3.84	32.7	3.86	33.6	3.91	34.5	3.95
	4	22.6	3.11	27.3	3.79	32.0	3.84	33.3	3.86	33.7	3.88	34.6	3.93	35.5	3.97
	7	23.6	3.17	28.3	3.86	33.0	3.91	34.3	3.93	34.7	3.95	35.6	4.00	36.5	4.04
	10	24.6	3.23	29.3	3.95	34.0	4.69	35.3	4.80	35.7	4.70	36.6	4.50	37.5	4.30
	12	24.6	3.29	29.3	4.02	34.0	4.79	34.8	4.77	35.3	4.67	36.1	4.47	37.0	4.40
	14	24.6	3.35	29.3	4.10	33.9	4.84	34.4	4.75	34.8	4.64	35.7	4.61	36.6	4.65
	16	24.6	3.41	29.3	4.18	33.5	4.82	33.9	4.79	34.3	4.80	35.2	4.85	36.1	4.90
	18	24.6	3.47	29.3	4.27	33.0	5.00	33.4	5.03	33.9	5.06	34.8	5.11	35.7	5.15
	20	24.6	3.55	29.3	4.54	32.5	5.25	33.0	5.28	33.4	5.31	34.3	5.35	35.2	5.41
	21	24.6	3.64	29.3	4.70	32.3	5.37	32.8	5.40	33.2	5.43	34.1	5.48	35.0	5.53
	23	24.6	3.91	29.3	5.04	31.9	5.62	32.3	5.65	32.7	5.67	33.6	5.73	34.5	5.79
	25	24.6	4.17	29.3	5.40	31.4	5.86	31.9	5.89	32.3	5.93	33.2	5.98	34.1	6.04
	27	24.6	4.46	29.3	5.78	31.0	5.16	31.4	6.15	31.8	6.17	32.7	6.24	33.6	6.31
	29	24.6	4.76	29.3	6.17	30.5	6.35	30.9	6.39	31.4	6.43	32.3	6.49	33.2	6.56
	31	24.6	5.08	29.2	6.53	30.0	6.61	30.5	6.65	30.9	6.67	31.8	6.75	32.7	6.83
	33	24.6	5.41	28.7	6.78	29.6	6.84	30.0	6.89	30.5	6.93	31.4	7.00	32.2	7.09
	35	24.6	5.77	28.2	7.02	29.1	7.11	29.6	7.15	30.0	7.18	30.9	7.27	31.8	7.34
	37	24.6	6.14	27.8	7.28	28.7	7.36	29.1	7.40	29.6	7.45	30.4	7.53	31.3	7.62
	39	24.6	6.53	27.3	7.52	28.2	7.61	28.7	7.66	29.1	7.70	30.0	7.79	30.9	7.88
41	25.6	7.27	28.3	8.85	29.2	8.96	29.7	8.29	30.1	8.33	31.0	8.43	31.9	8.52	
44	26.6	7.90	29.3	9.62	30.2	9.95	30.7	9.36	31.1	8.98	32.0	8.87	32.9	8.96	
47	27.6	10.51	30.3	12.80	31.2	10.45	31.7	9.50	32.1	9.55	33.0	9.52	33.9	9.62	
50	28.6	10.32	31.3	12.57	32.2	11.02	32.7	11.00	33.1	10.49	34.0	10.32	34.9	10.14	
52	29.6	8.71	32.3	10.61	33.2	9.38	33.7	9.36	34.1	9.20	35.0	9.09	35.9	8.81	
120%	-5	30.6	2.76	33.3	3.57	34.2	3.79	34.7	3.81	35.1	3.83	36.0	3.87	36.9	3.91
	0	31.6	2.76	34.3	3.58	35.2	3.80	35.7	3.82	36.1	3.84	37.0	3.88	37.9	3.92
	4	32.6	2.77	35.3	3.59	36.2	3.81	36.7	3.83	37.1	3.85	38.0	3.89	38.9	3.94
	7	33.6	2.82	36.3	3.66	37.2	3.88	37.7	3.90	38.1	3.93	39.0	3.97	39.9	4.01
	10	22.7	2.95	27.0	3.60	31.4	4.28	33.6	4.63	35.2	4.82	36.0	4.64	36.8	4.46
	12	22.7	3.00	27.0	3.66	31.4	4.36	33.6	4.71	34.7	4.80	35.5	4.62	36.3	4.43
	14	22.7	3.06	27.0	3.74	31.4	4.45	33.6	4.80	34.2	4.77	35.1	4.59	35.9	4.62
	16	22.7	3.12	27.0	3.81	31.4	4.53	33.4	4.84	33.8	4.78	34.6	4.82	35.4	4.86
	18	22.7	3.17	27.0	3.89	31.4	4.69	32.9	5.00	33.3	5.02	34.1	5.07	35.0	5.12
	20	22.7	3.24	27.0	4.04	31.4	5.04	32.5	5.25	32.9	5.27	33.7	5.31	34.5	5.36
	21	22.7	3.27	27.0	4.18	31.4	5.22	32.2	5.37	32.6	5.39	33.5	5.44	34.3	5.49
	23	22.7	3.49	27.0	4.48	31.4	5.59	31.8	5.61	32.2	5.64	33.0	5.69	33.8	5.74
	25	22.7	3.73	27.0	4.80	30.9	5.83	31.3	5.85	31.7	5.88	32.6	5.94	33.4	5.99
	27	22.7	3.98	27.0	5.13	30.5	6.07	30.9	6.11	31.3	6.14	32.1	6.19	32.9	6.25
	29	22.7	4.25	27.0	5.48	30.0	6.32	30.4	6.35	30.8	6.38	31.6	6.45	32.5	6.50
	31	22.7	4.53	27.0	5.84	29.6	6.57	30.0	6.60	30.4	6.64	31.2	6.70	32.0	6.77
	33	22.7	4.82	27.0	6.24	29.1	6.82	29.5	6.85	29.9	6.88	30.7	6.96	31.5	7.02
	35	22.7	5.14	27.0	6.65	28.6	7.06	29.0	7.10	29.5	7.14	30.3	7.21	31.1	7.29
	37	22.7	5.47	27.0	7.08	28.2	7.32	28.6	7.35	29.0	7.39	29.8	7.47	30.6	7.55
	39	22.7	5.82	26.9	7.48	27.7	7.56	28.1	7.61	28.5	7.65	29.4	7.73	30.2	7.81
41	23.7	6.47	27.9	8.37	28.7	8.90	29.1	8.23	29.5	8.28	30.4	8.37	31.2	8.45	
44	24.7	7.04	28.9	9.10	29.7	9.89	30.1	9.30	30.5	8.92	31.4	8.80	32.2	8.89	
47	25.7	9.36	29.9	12.12	30.7	10.38	31.1	9.44	31.5	9.49	32.4	9.45	33.2	9.55	
50	26.7	9.19	30.9	11.90	31.7	10.94	32.1	10.93	32.5	10.42	33.4	10.24	34.2	10.06	
52	27.7	7.75	31.9	10.04	32.7	9.32	33.1	9.30	33.5	9.13	34.4	9.02	35.2	8.75	

110%	-5	28.7	2.44	32.9	3.14	33.7	3.77	34.1	3.79	34.5	3.81	35.4	3.84	36.2	3.88
	0	29.7	2.44	33.9	3.14	34.7	3.77	35.1	3.79	35.5	3.81	36.4	3.85	37.2	3.89
	4	30.7	2.45	34.9	3.16	35.7	3.79	36.1	3.81	36.5	3.83	37.4	3.86	38.2	3.90
	7	31.7	2.50	35.9	3.21	36.7	3.86	37.1	3.88	37.5	3.90	38.4	3.94	39.2	3.97
	10	20.8	2.67	24.8	3.26	28.8	3.87	30.8	4.18	32.8	4.50	35.3	4.78	36.1	4.62
	12	20.8	2.73	24.8	3.32	28.8	3.95	30.8	4.27	32.8	4.59	34.9	4.76	35.6	4.59
	14	20.8	2.78	24.8	3.38	28.8	4.02	30.8	4.34	32.8	4.67	34.4	4.76	35.2	4.58
	16	20.8	2.82	24.8	3.45	28.8	4.10	30.8	4.43	32.8	4.77	34.0	4.79	34.7	4.83
	18	20.8	2.88	24.8	3.51	28.8	4.18	30.8	4.55	32.8	4.99	33.5	5.03	34.3	5.08
	20	20.8	2.94	24.8	3.59	28.8	4.43	30.8	4.89	32.3	5.24	33.1	5.28	33.8	5.32
	21	20.8	2.96	24.8	3.69	28.8	4.59	30.8	5.07	32.1	5.36	32.8	5.40	33.6	5.45
	23	20.8	3.11	24.8	3.96	28.8	4.92	30.8	5.44	31.6	5.60	32.4	5.65	33.1	5.70
	25	20.8	3.30	24.8	4.23	28.8	5.26	30.8	5.82	31.2	5.84	31.9	5.90	32.7	5.95
	27	20.8	3.53	24.8	4.52	28.8	5.63	30.3	6.07	30.7	6.09	31.5	6.15	32.2	6.20
	29	20.8	3.77	24.8	4.82	28.8	6.01	29.9	6.32	30.3	6.34	31.0	6.40	31.8	6.46
	31	20.8	4.01	24.8	5.14	28.8	6.42	29.4	6.56	29.8	6.59	30.6	6.65	31.3	6.71
	33	20.8	4.27	24.8	5.48	28.6	6.77	29.0	6.81	29.4	6.83	30.1	6.90	30.9	6.97
	35	20.8	4.54	24.8	5.84	28.2	7.01	28.5	7.05	28.9	7.09	29.6	7.16	30.4	7.22
	37	20.8	4.83	24.8	6.22	27.7	7.27	28.1	7.30	28.4	7.33	29.2	7.41	29.9	7.48
	39	20.8	5.14	24.8	6.63	27.2	7.51	27.6	7.55	28.0	7.59	28.7	7.67	29.5	7.74
41	21.8	5.72	25.8	7.36	28.2	8.84	28.6	8.18	29.0	8.22	29.7	8.30	30.5	8.38	
44	22.8	6.22	26.8	8.01	29.2	9.82	29.6	9.24	30.0	8.86	30.7	8.73	31.5	8.81	
47	23.8	8.28	27.8	10.65	30.2	10.31	30.6	9.38	31.0	9.43	31.7	9.37	32.5	9.46	
50	24.8	8.13	28.8	10.46	31.2	10.87	31.6	10.86	32.0	10.35	32.7	10.16	33.5	9.97	
52	25.8	6.86	29.8	8.82	32.2	9.26	32.6	9.24	33.0	9.07	33.7	8.94	34.5	8.67	
100%	-5	26.8	2.13	30.8	2.73	33.2	3.40	33.6	3.76	34.0	3.78	34.7	3.81	35.5	3.85
	0	27.8	2.14	31.8	2.74	34.2	3.41	34.6	3.77	35.0	3.79	35.7	3.82	36.5	3.86
	4	28.8	2.14	32.8	2.75	35.2	3.42	35.6	3.78	36.0	3.80	36.7	3.84	37.5	3.87
	7	29.8	2.18	33.8	2.80	36.2	3.49	36.6	3.85	37.0	3.87	37.7	3.91	38.5	3.94
	10	18.9	2.42	22.5	2.94	26.2	3.47	28.0	3.75	29.8	4.05	33.5	4.58	35.4	4.76
	12	18.9	2.45	22.5	2.97	26.2	3.52	28.0	3.80	29.8	4.13	33.5	4.66	34.9	4.72
	14	18.9	2.49	22.5	3.03	26.2	3.58	28.0	3.87	29.8	4.20	33.5	4.74	34.5	4.69
	16	18.9	2.55	22.5	3.09	26.2	3.66	28.0	3.96	29.8	4.30	33.4	4.85	34.0	4.79
	18	18.9	2.60	22.5	3.16	26.2	3.73	28.0	4.03	29.8	4.38	32.9	4.94	33.6	5.02
	20	18.9	2.64	22.5	3.21	26.2	3.85	28.0	4.24	29.8	4.66	32.4	5.20	33.1	5.28
	21	18.9	2.67	22.5	3.24	26.2	3.99	28.0	4.39	29.8	4.82	32.2	5.38	32.9	5.43
	23	18.9	2.74	22.5	3.47	26.2	4.29	28.0	4.72	29.8	5.18	31.8	5.69	32.4	5.75
	25	18.9	2.91	22.5	3.69	26.2	4.56	28.0	5.02	29.8	5.54	31.3	5.90	32.0	5.95
	27	18.9	3.11	22.5	3.94	26.2	4.89	28.0	5.39	29.8	5.95	30.8	6.11	31.5	6.16
	29	18.9	3.30	22.5	4.21	26.2	5.23	28.0	5.76	29.7	6.30	30.4	6.40	31.1	6.46
	31	18.9	3.51	22.5	4.48	26.2	5.58	28.0	6.21	29.3	6.56	29.7	6.66	30.6	6.72
	33	18.9	3.73	22.5	4.77	26.2	5.95	28.0	6.57	28.8	6.79	29.5	6.85	30.2	6.92
	35	18.9	3.97	22.5	5.08	26.2	6.34	28.0	7.00	28.3	7.04	29.0	7.10	29.7	7.17
	37	18.9	4.23	22.5	5.41	26.2	6.75	27.5	7.26	27.9	7.29	28.6	7.34	29.3	7.41
	39	18.9	4.50	22.5	5.77	26.2	7.19	27.1	7.50	27.3	7.53	28.2	7.59	28.6	7.65
41	18.9	5.00	22.5	6.41	26.2	7.99	26.6	8.13	26.8	8.17	27.7	8.24	28.0	8.31	
44	18.9	5.44	22.5	6.96	26.2	8.87	26.3	9.18	26.4	8.80	27.3	8.67	27.7	8.74	
47	18.9	7.24	22.5	9.27	26.2	9.32	25.8	9.32	25.9	9.36	26.8	9.30	27.2	9.39	
50	18.9	7.11	22.5	9.10	26.2	9.83	25.5	10.79	25.6	10.28	26.5	10.09	26.8	9.89	
52	18.9	6.00	22.5	7.68	26.2	8.37	25.0	9.18	25.1	9.01	26.0	8.88	26.3	8.60	

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90%	-5	18.9	1.86	22.5	2.35	26.2	2.91	24.7	3.21	24.8	3.53	25.6	3.78	26.0	3.81
	0	18.9	1.86	22.5	2.36	26.2	2.91	24.2	3.22	24.4	3.54	25.2	3.79	25.5	3.82
	4	18.9	1.87	22.5	2.37	26.2	2.92	23.9	3.23	24.0	3.55	24.8	3.80	25.2	3.84
	7	18.9	1.91	22.5	2.41	26.2	2.98	23.5	3.29	23.6	3.62	24.4	3.87	24.7	3.91
	10	17.0	2.11	20.2	2.53	23.6	2.97	25.2	3.34	26.8	3.56	30.1	4.08	33.4	4.62
	12	17.0	2.14	20.2	2.57	23.6	3.00	25.2	3.38	26.8	3.63	30.1	4.15	33.4	4.68
	14	17.0	2.17	20.2	2.61	23.6	3.06	25.2	3.44	26.8	3.69	30.1	4.22	33.4	4.75
	16	17.0	2.22	20.2	2.67	23.6	3.13	25.2	3.51	26.8	3.77	30.1	4.31	33.3	4.85
	18	17.0	2.27	20.2	2.73	23.6	3.19	25.2	3.58	26.8	3.84	30.1	4.41	33.0	5.02
	20	17.0	2.31	20.2	2.77	23.6	3.29	25.2	3.65	26.8	4.00	30.1	4.74	32.4	5.23
	21	17.0	2.33	20.2	2.80	23.6	3.40	25.2	3.78	26.8	4.14	30.1	4.90	32.2	5.35
	23	17.0	2.39	20.2	2.99	23.6	3.66	25.2	4.06	26.8	4.43	30.1	5.27	31.7	5.62
	25	17.0	2.54	20.2	3.18	23.6	3.89	25.2	4.33	26.8	4.74	30.1	5.63	31.3	5.85
	27	17.0	2.72	20.2	3.40	23.6	4.18	25.2	4.63	26.8	5.08	30.1	6.01	30.8	6.11
	29	17.0	2.88	20.2	3.63	23.6	4.47	25.2	4.94	26.8	5.42	29.8	6.30	30.4	6.36
	31	17.0	3.06	20.2	3.87	23.6	4.76	25.2	5.27	26.8	5.78	29.3	6.53	29.9	6.62
	33	17.0	3.26	20.2	4.12	23.6	5.08	25.2	5.61	26.8	6.15	28.9	6.79	29.5	6.86
	35	17.0	3.46	20.2	4.38	23.6	5.41	25.2	5.98	26.8	6.58	28.4	7.04	29.0	7.10
	37	17.0	3.69	20.2	4.67	23.6	5.77	24.7	6.20	26.8	7.04	27.9	7.29	28.6	7.27
	39	17.0	3.93	20.2	4.97	23.6	6.14	24.4	6.40	26.8	7.46	27.5	7.56	28.1	7.54
41	17.0	4.36	20.2	5.53	23.6	6.82	24.0	6.94	26.8	7.63	28.5	8.17	29.1	8.24	
44	17.0	4.75	20.2	6.01	23.6	7.58	23.6	7.84	26.8	8.23	29.5	8.59	30.1	8.67	
47	17.0	6.32	20.2	7.99	23.6	7.96	23.2	7.96	26.8	8.75	30.5	9.22	31.1	9.31	
50	17.0	6.20	20.2	7.85	23.6	8.39	22.9	9.21	26.8	9.61	31.5	10.00	32.1	9.80	
52	17.0	5.23	20.2	6.62	23.6	7.15	22.5	7.84	26.8	8.42	32.5	8.80	33.1	8.52	
80%	-5	17.0	1.61	20.2	1.98	23.6	2.46	22.2	2.71	26.8	2.96	33.5	3.52	34.1	3.77
	0	17.0	1.61	20.2	1.99	23.6	2.47	21.8	2.72	26.8	2.97	34.5	3.53	35.1	3.78
	4	17.0	1.62	20.2	1.99	23.6	2.48	21.5	2.73	26.8	2.98	35.5	3.54	36.1	3.79
	7	17.0	1.65	20.2	2.03	23.6	2.52	21.1	2.78	26.8	3.04	36.5	3.60	37.1	3.86
	10	15.1	1.92	18.0	2.29	21.0	2.70	22.4	2.91	23.8	3.11	26.8	3.56	29.7	4.13
	12	15.1	1.94	18.0	2.33	21.0	2.75	22.4	2.96	23.8	3.17	26.8	3.62	29.7	4.10
	14	15.1	1.98	18.0	2.38	21.0	2.79	22.4	3.01	23.8	3.23	26.8	3.68	29.7	4.19
	16	15.1	2.01	18.0	2.42	21.0	2.85	22.4	3.07	23.8	3.28	26.8	3.76	29.7	4.34
	18	15.1	2.05	18.0	2.46	21.0	2.92	22.4	3.13	23.8	3.34	26.8	3.85	29.7	4.64
	20	15.1	2.09	18.0	2.51	21.0	2.96	22.4	3.19	23.8	3.42	26.8	3.99	29.7	4.81
	21	15.1	2.11	18.0	2.53	21.0	2.99	22.4	3.23	23.8	3.50	26.8	4.13	29.7	5.15
	23	15.1	2.14	18.0	2.59	21.0	3.13	22.4	3.44	23.8	3.74	26.8	4.42	29.7	5.51
	25	15.1	2.21	18.0	2.75	21.0	3.35	22.4	3.67	23.8	3.99	26.8	4.73	29.7	5.88
	27	15.1	2.35	18.0	2.93	21.0	3.57	22.4	3.92	23.8	4.28	26.8	5.05	29.7	6.09
	29	15.1	2.50	18.0	3.12	21.0	3.80	22.4	4.17	23.8	4.57	26.8	5.39	29.7	6.31
	31	15.1	2.65	18.0	3.31	21.0	4.05	22.4	4.45	23.8	4.87	26.8	5.75	29.2	6.54
	33	15.1	2.82	18.0	3.69	21.0	4.31	22.4	4.74	23.8	5.18	26.8	6.14	28.8	6.77
	35	15.1	2.99	18.0	3.69	21.0	4.59	22.4	5.05	23.8	5.52	26.8	6.55	28.3	7.02
	37	15.1	3.17	18.0	3.97	21.0	4.88	22.0	5.38	23.8	5.88	26.8	6.98	27.9	7.28
	39	15.1	3.36	18.0	4.22	21.0	5.19	21.7	5.73	23.8	6.26	26.8	7.43	27.4	7.55
41	15.1	3.77	18.0	4.65	21.0	5.78	21.3	5.86	23.8	6.40	26.8	7.60	28.4	8.14	
44	15.1	4.10	18.0	5.06	21.0	6.42	21.0	6.62	23.8	6.90	26.8	7.99	29.4	8.56	
47	15.1	5.46	18.0	6.73	21.0	6.74	20.6	6.72	23.8	7.34	26.8	8.58	30.4	9.20	
50	15.1	5.36	18.0	6.61	21.0	7.11	20.4	7.78	23.8	8.06	26.8	9.30	31.4	9.69	
52	15.1	4.52	18.0	5.57	21.0	6.06	20.0	6.62	23.8	7.07	26.8	8.19	32.4	8.42	

70%	-5	15.1	1.37	18.0	1.69	21.0	2.05	19.7	2.25	23.8	2.45	26.8	2.89	33.4	3.36
	0	15.1	1.37	18.0	1.70	21.0	2.06	19.4	2.25	23.8	2.46	26.8	2.89	34.4	3.37
	4	15.1	1.38	18.0	1.70	21.0	2.06	19.1	2.26	23.8	2.47	26.8	2.91	35.4	3.38
	7	15.1	1.40	18.0	1.73	21.0	2.10	18.8	2.31	23.8	2.51	26.8	2.96	36.4	3.44
	10	13.2	1.69	15.7	2.00	18.3	2.33	19.6	2.51	20.9	2.69	23.4	3.06	26.0	3.44
	12	13.2	1.71	15.7	2.03	18.3	2.38	19.6	2.56	20.9	2.74	23.4	3.12	26.0	3.50
	14	13.2	1.74	15.7	2.07	18.3	2.42	19.6	2.60	20.9	2.78	23.4	3.17	26.0	3.57
	16	13.2	1.77	15.7	2.11	18.3	2.46	19.6	2.65	20.9	2.84	23.4	3.23	26.0	3.63
	18	13.2	1.79	15.7	2.14	18.3	2.51	19.6	2.70	20.9	2.89	23.4	3.29	26.0	3.71
	20	13.2	1.82	15.7	2.18	18.3	2.56	19.6	2.75	20.9	2.95	23.4	3.36	26.0	3.81
	21	13.2	1.84	15.7	2.20	18.3	2.58	19.6	2.78	20.9	2.97	23.4	3.40	26.0	3.95
	23	13.2	1.87	15.7	2.24	18.3	2.63	19.6	2.87	20.9	3.12	23.4	3.65	26.0	4.23
	25	13.2	1.91	15.7	2.33	18.3	2.80	19.6	3.07	20.9	3.33	23.4	3.91	26.0	4.52
	27	13.2	2.02	15.7	2.48	18.3	2.99	19.6	3.27	20.9	3.56	23.4	4.17	26.0	4.83
	29	13.2	2.14	15.7	2.63	18.3	3.18	19.6	3.48	20.9	3.79	23.4	4.45	26.0	5.16
	31	13.2	2.27	15.7	2.79	18.3	3.39	19.6	3.70	20.9	4.03	23.4	4.74	26.0	5.50
	33	13.2	2.41	15.7	2.97	18.3	3.61	19.6	3.94	20.9	4.30	23.4	5.05	26.0	5.87
	35	13.2	2.55	15.7	3.15	18.3	3.82	19.6	4.19	20.9	4.57	23.4	5.38	26.0	6.26
	37	13.2	2.69	15.7	3.34	18.3	4.07	19.2	4.46	20.9	4.86	23.4	5.73	26.0	6.66
	39	13.2	2.85	15.7	3.54	18.3	4.31	19.0	4.73	20.9	5.16	23.4	6.09	26.0	7.10
41	13.2	3.21	15.7	3.97	18.3	4.82	18.6	4.86	20.9	5.30	23.4	6.24	26.0	7.26	
44	13.2	3.49	15.7	4.32	18.3	5.35	18.4	5.49	20.9	5.71	23.4	6.56	26.0	7.64	
47	13.2	4.65	15.7	5.75	18.3	5.62	18.1	5.57	20.9	6.08	23.4	7.05	26.0	8.20	
50	13.2	4.56	15.7	5.64	18.3	5.93	17.8	6.45	20.9	6.67	23.4	7.64	26.0	8.64	
52	13.2	3.85	15.7	4.76	18.3	5.05	17.5	5.49	20.9	5.85	23.4	6.73	26.0	7.51	
60%	-5	13.2	1.15	15.7	1.40	18.3	1.68	17.3	1.84	20.9	1.99	23.4	2.33	26.0	2.69
	0	13.2	1.15	15.7	1.41	18.3	1.69	17.0	1.84	20.9	2.00	23.4	2.33	26.0	2.69
	4	13.2	1.16	15.7	1.41	18.3	1.69	16.7	1.85	20.9	2.00	23.4	2.34	26.0	2.70
	7	13.2	1.18	15.7	1.44	18.3	1.72	16.4	1.88	20.9	2.04	23.4	2.38	26.0	2.75
	10	11.3	1.46	13.5	1.72	15.7	1.99	16.8	2.13	17.9	2.28	20.1	2.58	22.3	2.89
	12	11.3	1.49	13.5	1.75	15.7	2.03	16.8	2.17	17.9	2.31	20.1	2.62	22.3	2.94
	14	11.3	1.51	13.5	1.77	15.7	2.06	16.8	2.21	17.9	2.36	20.1	2.67	22.3	2.99
	16	11.3	1.53	13.5	1.80	15.7	2.10	16.8	2.25	17.9	2.40	20.1	2.72	22.3	3.05
	18	11.3	1.56	13.5	1.83	15.7	2.13	16.8	2.28	17.9	2.44	20.1	2.77	22.3	3.11
	20	11.3	1.58	13.5	1.87	15.7	2.17	16.8	2.33	17.9	2.49	20.1	2.82	22.3	3.17
	21	11.3	1.60	13.5	1.88	15.7	2.19	16.8	2.35	17.9	2.51	20.1	2.85	22.3	3.20
	23	11.3	1.61	13.5	1.92	15.7	2.23	16.8	2.40	17.9	2.56	20.1	2.96	22.3	3.41
	25	11.3	1.64	13.5	1.95	15.7	2.31	16.8	2.51	17.9	2.72	20.1	3.16	22.3	3.63
	27	11.3	1.71	13.5	2.07	15.7	2.46	16.8	2.68	17.9	2.90	20.1	3.37	22.3	3.88
	29	11.3	1.80	13.5	2.19	15.7	2.62	16.8	2.85	17.9	3.09	20.1	3.60	22.3	4.14
	31	11.3	1.92	13.5	2.33	15.7	2.78	16.8	3.03	17.9	3.29	20.1	3.82	22.3	4.41
	33	11.3	2.02	13.5	2.46	15.7	2.95	16.8	3.22	17.9	3.49	20.1	4.07	22.3	4.70
	35	11.3	2.14	13.5	2.61	15.7	3.13	16.8	3.42	17.9	3.71	20.1	4.33	22.3	5.00
	37	11.3	2.27	13.5	2.77	15.7	3.32	16.5	3.62	17.9	3.94	20.1	4.61	22.3	5.32
	39	11.3	2.39	13.5	2.93	15.7	3.52	16.3	3.84	17.9	4.18	20.1	4.89	22.3	5.66
41	11.3	2.70	13.5	3.29	15.7	3.95	16.0	3.96	17.9	4.30	20.1	5.03	22.3	5.80	
44	11.3	2.94	13.5	3.58	15.7	4.39	15.8	4.48	17.9	4.64	20.1	5.29	22.3	6.10	
47	11.3	3.91	13.5	4.77	15.7	4.61	15.5	4.54	17.9	4.93	20.1	5.68	22.3	6.55	
50	11.3	3.84	13.5	4.68	15.7	4.86	15.3	5.26	17.9	5.42	20.1	6.15	22.3	6.90	
52	11.3	3.24	13.5	3.95	15.7	4.14	15.0	4.48	17.9	4.75	20.1	5.42	22.3	6.00	

GMV5 DC Inverter VRF Units Technical Sales Guide

50%	-5	11.3	0.95	13.5	1.14	15.7	1.35	14.8	1.46	17.9	1.58	20.1	1.82	22.3	2.09
	0	11.3	0.95	13.5	1.14	15.7	1.35	14.5	1.46	17.9	1.58	20.1	1.83	22.3	2.09
	4	11.3	0.96	13.5	1.15	15.7	1.36	14.3	1.47	17.9	1.59	20.1	1.84	22.3	2.10
	7	11.3	0.98	13.5	1.17	15.7	1.38	14.1	1.50	17.9	1.61	20.1	1.87	22.3	2.14
	10	9.5	1.26	11.2	1.46	13.1	1.67	14.0	1.78	14.9	1.89	16.7	2.12	18.6	2.37
	12	9.5	1.27	11.2	1.48	13.1	1.70	14.0	1.80	14.9	1.93	16.7	2.16	18.6	2.41
	14	9.5	1.29	11.2	1.50	13.1	1.72	14.0	1.84	14.9	1.95	16.7	2.20	18.6	2.45
	16	9.5	1.31	11.2	1.52	13.1	1.75	14.0	1.87	14.9	1.98	16.7	2.24	18.6	2.49
	18	9.5	1.33	11.2	1.55	13.1	1.77	14.0	1.90	14.9	2.02	16.7	2.28	18.6	2.54
	20	9.5	1.35	11.2	1.57	13.1	1.80	14.0	1.94	14.9	2.06	16.7	2.32	18.6	2.59
	21	9.5	1.36	11.2	1.59	13.1	1.82	14.0	1.94	14.9	2.08	16.7	2.34	18.6	2.61
	23	9.5	1.38	11.2	1.60	13.1	1.85	14.0	1.98	14.9	2.11	16.7	2.38	18.6	2.67
	25	9.5	1.40	11.2	1.63	13.1	1.89	14.0	2.02	14.9	2.18	16.7	2.50	18.6	2.85
	27	9.5	1.43	11.2	1.70	13.1	1.99	14.0	2.15	14.9	2.31	16.7	2.66	18.6	3.04
	29	9.5	1.50	11.2	1.79	13.1	2.11	14.0	2.28	14.8	2.46	16.7	2.83	18.6	3.24
	31	9.5	1.59	11.2	1.90	13.1	2.26	14.0	2.43	14.8	2.61	16.7	3.01	18.6	3.45
	33	9.5	1.68	11.2	2.01	13.1	2.38	14.0	2.57	14.8	2.78	16.7	3.20	18.6	3.66
	35	9.5	1.77	11.2	2.12	13.1	2.51	14.0	2.72	14.8	2.94	16.7	3.40	18.6	3.89
	37	9.5	1.87	11.2	2.25	13.1	2.66	13.7	2.88	14.8	3.12	16.7	3.61	18.6	4.13
	39	9.5	1.97	11.2	2.37	13.1	2.81	13.6	3.05	14.8	3.30	16.7	3.82	18.6	4.39
41	9.5	2.24	11.2	2.68	13.1	3.16	13.3	3.15	14.8	3.41	16.7	3.94	18.6	4.51	
44	9.5	2.43	11.2	2.91	13.1	3.52	13.1	3.56	14.8	3.67	16.7	4.15	18.6	4.74	
47	9.5	3.24	11.2	3.87	13.1	3.69	12.9	3.62	14.8	3.90	16.7	4.45	18.6	5.09	
50	9.5	3.18	11.2	3.80	13.1	3.89	12.7	4.19	14.8	4.29	16.7	4.83	18.6	5.37	
52	9.5	2.68	11.2	3.21	13.1	3.31	12.5	3.56	14.8	3.76	16.7	4.25	18.6	4.67	

GMV-335WM/B-X

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

Combination	Outdoor air temp. (°CDB)	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
135%	-5	29.4	3.72	35.1	4.53	40.7	4.58	42.2	4.61	43.1	4.63	44.1	4.68	45.5	4.73
	0	29.4	3.72	35.1	4.54	40.7	4.59	42.2	4.61	43.1	4.64	44.1	4.69	45.5	4.74
	4	29.4	3.74	35.1	4.55	40.7	4.61	42.2	4.63	43.1	4.66	44.1	4.71	45.5	4.76
	7	29.4	3.81	35.1	4.64	40.7	4.69	42.2	4.72	43.1	4.74	43.8	4.80	44.9	4.85
	10	29.4	3.87	35.1	4.74	40.7	5.63	42.2	5.76	42.7	5.64	43.8	5.40	44.9	5.16
	12	29.4	3.94	35.1	4.83	40.7	5.74	41.6	5.72	42.2	5.61	43.2	5.36	44.3	5.28
	14	29.4	4.02	35.1	4.92	40.6	5.81	41.2	5.70	41.6	5.57	42.7	5.53	43.8	5.59
	16	29.4	4.09	35.1	5.02	40.1	5.79	40.6	5.74	41.0	5.77	42.1	5.82	43.2	5.88
	18	29.4	4.17	35.1	5.12	39.5	6.00	40.0	6.04	40.6	6.07	41.6	6.13	42.7	6.19
	20	29.4	4.26	35.1	5.45	38.9	6.30	39.5	6.33	40.0	6.37	41.0	6.42	42.1	6.49
	21	29.4	4.37	35.1	5.64	38.6	6.45	39.2	6.48	39.7	6.51	40.8	6.58	41.9	6.64
	23	29.4	4.69	35.1	6.05	38.2	6.74	38.6	6.78	39.1	6.81	40.2	6.88	41.3	6.95
	25	29.4	5.01	35.1	6.48	37.6	7.04	38.2	7.07	38.6	7.12	39.7	7.18	40.8	7.25
	27	29.4	5.35	35.1	6.93	37.1	6.20	37.6	7.38	38.0	7.41	39.1	7.49	40.2	7.57
	29	29.4	5.71	35.1	7.41	36.5	7.63	37.0	7.67	37.6	7.72	38.6	7.80	39.7	7.87
	31	29.4	6.10	34.9	7.84	35.9	7.93	36.5	7.98	37.0	8.01	38.0	8.10	39.1	8.19
	33	29.4	6.49	34.3	8.13	35.4	8.21	35.9	8.27	36.5	8.32	37.6	8.41	38.5	8.51
	35	29.4	6.92	33.7	8.43	34.8	8.53	35.4	8.58	35.9	8.62	37.0	8.72	38.0	8.81
	37	29.4	7.36	33.3	8.74	34.3	8.84	34.8	8.88	35.4	8.94	36.4	9.04	37.4	9.14
	39	29.4	7.84	32.7	9.03	33.7	9.13	34.3	9.19	34.8	9.25	35.9	9.35	37.0	9.46
41	27.8	8.72	32.1	10.62	33.1	10.75	33.7	9.95	34.1	10.00	35.2	10.12	36.3	10.23	
44	25.9	9.48	30.4	11.55	31.5	11.94	32.2	11.24	32.8	10.78	33.9	10.64	35.0	10.75	
47	24.4	12.62	29.4	15.37	30.5	12.54	31.1	11.41	31.6	11.47	32.7	11.43	33.9	11.55	
50	22.4	12.39	26.3	15.09	27.2	13.22	27.7	13.21	28.2	12.59	29.2	12.39	30.4	12.16	
52	17.0	10.45	19.6	12.73	20.4	11.26	20.9	11.24	21.5	11.04	23.3	10.91	24.7	10.58	

120%	-5	27.2	3.31	33.6	4.28	40.0	4.55	41.4	4.58	42.4	4.60	43.3	4.65	44.5	4.70
	0	27.2	3.32	33.6	4.29	40.0	4.56	41.4	4.58	42.4	4.61	43.3	4.66	44.5	4.71
	4	27.2	3.33	33.6	4.31	40.0	4.58	41.4	4.60	42.4	4.63	43.3	4.67	44.5	4.72
	7	27.2	3.39	33.6	4.39	40.0	4.66	41.4	4.69	42.4	4.71	42.9	4.76	43.9	4.81
	10	27.2	3.53	32.3	4.32	37.6	5.13	40.2	5.55	42.1	5.79	43.1	5.56	44.0	5.35
	12	27.2	3.60	32.3	4.40	37.6	5.23	40.2	5.65	41.5	5.76	42.5	5.54	43.4	5.31
	14	27.2	3.67	32.3	4.49	37.6	5.34	40.2	5.77	40.9	5.72	42.0	5.51	43.0	5.54
	16	27.2	3.74	32.3	4.58	37.6	5.44	40.0	5.81	40.4	5.73	41.4	5.79	42.4	5.83
	18	27.2	3.81	32.3	4.67	37.6	5.63	39.4	6.00	39.8	6.03	40.8	6.08	41.9	6.14
	20	27.2	3.89	32.3	4.85	37.6	6.05	38.9	6.30	39.4	6.32	40.3	6.38	41.3	6.44
	21	27.2	3.92	32.3	5.02	37.6	6.27	38.5	6.45	39.0	6.47	40.1	6.53	41.0	6.59
	23	27.2	4.19	32.3	5.38	37.6	6.71	38.0	6.73	38.5	6.76	39.5	6.83	40.4	6.89
	25	27.2	4.48	32.3	5.76	37.0	7.00	37.4	7.02	37.9	7.06	39.0	7.13	40.0	7.19
	27	27.2	4.78	32.3	6.15	36.5	7.29	37.0	7.33	37.4	7.36	38.4	7.43	39.4	7.50
	29	27.2	5.10	32.3	6.57	35.9	7.58	36.4	7.63	36.8	7.66	37.8	7.74	38.9	7.81
	31	27.2	5.44	32.3	7.01	35.4	7.89	35.9	7.92	36.4	7.96	37.3	8.04	38.3	8.12
	33	27.2	5.79	32.3	7.49	34.8	8.18	35.3	8.23	35.8	8.26	36.7	8.35	37.7	8.43
	35	27.2	6.16	32.3	7.98	34.2	8.47	34.7	8.52	35.3	8.57	36.3	8.66	37.2	8.75
	37	27.2	6.56	32.3	8.50	33.7	8.78	34.2	8.83	34.7	8.87	35.7	8.96	36.6	9.06
	39	27.2	6.98	32.2	8.97	33.1	9.08	33.6	9.13	34.1	9.18	35.2	9.28	36.1	9.37
41	25.7	7.77	30.7	10.05	32.5	10.68	33.0	9.88	33.6	9.94	34.5	10.04	35.5	10.15	
44	23.9	8.44	29.1	10.93	31.0	11.86	31.6	11.16	32.2	10.71	33.2	10.56	34.2	10.67	
47	22.5	11.24	28.1	14.54	29.9	12.46	30.5	11.33	31.1	11.39	32.1	11.34	33.1	11.46	
50	20.6	11.03	25.2	14.28	26.7	13.14	27.2	13.12	27.7	12.51	28.6	12.29	29.8	12.07	
52	15.6	9.31	18.7	12.04	20.0	11.19	20.5	11.16	21.2	10.96	22.8	10.82	24.2	10.50	
110%	-5	24.9	2.93	30.8	3.77	39.4	4.52	40.7	4.54	41.5	4.57	42.3	4.61	43.5	4.65
	0	24.9	2.93	30.8	3.77	39.4	4.53	40.7	4.55	41.5	4.58	42.3	4.62	43.5	4.66
	4	24.9	2.94	30.8	3.79	39.4	4.55	40.7	4.57	41.5	4.59	42.3	4.64	43.5	4.68
	7	24.9	3.00	30.8	3.86	39.4	4.63	40.7	4.65	41.5	4.68	41.9	4.72	42.9	4.77
	10	24.9	3.21	29.7	3.91	34.5	4.65	36.8	5.02	39.2	5.40	42.2	5.73	43.2	5.54
	12	24.9	3.27	29.7	3.99	34.5	4.74	36.8	5.12	39.2	5.51	41.8	5.71	42.6	5.51
	14	24.9	3.33	29.7	4.06	34.5	4.83	36.8	5.21	39.2	5.61	41.2	5.71	42.1	5.50
	16	24.9	3.39	29.7	4.14	34.5	4.92	36.8	5.31	39.2	5.72	40.7	5.74	41.5	5.80
	18	24.9	3.46	29.7	4.21	34.5	5.02	36.8	5.46	39.2	5.99	40.1	6.04	41.0	6.10
	20	24.9	3.52	29.7	4.31	34.5	5.31	36.8	5.87	38.6	6.29	39.6	6.33	40.4	6.39
	21	24.9	3.56	29.7	4.43	34.5	5.51	36.8	6.08	38.4	6.44	39.2	6.48	40.2	6.54
	23	24.9	3.73	29.7	4.75	34.5	5.90	36.8	6.53	37.8	6.72	38.8	6.79	39.6	6.84
	25	24.9	3.97	29.7	5.08	34.5	6.31	36.8	6.99	37.3	7.01	38.2	7.08	39.1	7.14
	27	24.9	4.24	29.7	5.43	34.5	6.75	36.3	7.29	36.7	7.31	37.7	7.38	38.5	7.44
	29	24.9	4.52	29.7	5.79	34.5	7.22	35.8	7.58	36.3	7.61	37.1	7.68	38.0	7.75
	31	24.9	4.82	29.7	6.17	34.5	7.70	35.2	7.87	35.7	7.91	36.6	7.98	37.4	8.06
	33	24.9	5.12	29.7	6.58	34.2	8.12	34.7	8.17	35.2	8.20	36.0	8.28	37.0	8.36
	35	24.9	5.45	29.7	7.01	33.7	8.42	34.1	8.46	34.6	8.51	35.4	8.59	36.4	8.67
	37	24.9	5.80	29.7	7.47	33.1	8.72	33.6	8.76	34.0	8.80	34.9	8.89	35.8	8.97
	39	24.9	6.16	29.7	7.95	32.5	9.02	33.0	9.06	33.5	9.11	34.3	9.20	35.3	9.29
41	23.5	6.87	28.2	8.84	32.1	10.61	32.4	9.82	32.9	9.87	33.7	9.96	34.7	10.05	
44	21.9	7.47	26.7	9.61	30.5	11.79	31.0	11.09	31.6	10.64	32.4	10.48	33.5	10.57	
47	20.7	9.93	25.8	12.79	29.5	12.37	29.9	11.26	30.4	11.32	31.3	11.25	32.4	11.35	
50	18.9	9.76	23.1	12.55	26.3	13.05	26.7	13.03	27.1	12.42	28.0	12.20	29.1	11.96	
52	14.3	8.23	17.2	10.59	19.7	11.11	20.1	11.09	20.7	10.89	22.3	10.74	23.6	10.40	

GMV5 DC Inverter VRF Units Technical Sales Guide

100%	-5	22.6	2.56	28.0	3.28	36.6	4.09	39.9	4.51	40.6	4.54	41.4	4.58	42.4	4.62
	0	22.6	2.56	28.0	3.28	36.6	4.09	39.9	4.52	40.6	4.55	41.4	4.59	42.4	4.63
	4	22.6	2.57	28.0	3.29	36.6	4.11	39.9	4.54	40.6	4.56	41.4	4.60	42.4	4.64
	7	22.6	2.62	28.0	3.36	36.6	4.18	39.9	4.62	40.6	4.65	41.1	4.69	41.9	4.73
	10	22.6	2.90	26.9	3.52	31.3	4.17	33.5	4.50	35.6	4.86	40.1	5.50	42.3	5.72
	12	22.6	2.94	26.9	3.57	31.3	4.22	33.5	4.56	35.6	4.95	40.1	5.60	41.7	5.67
	14	22.6	2.99	26.9	3.63	31.3	4.30	33.5	4.64	35.6	5.04	40.1	5.69	41.3	5.63
	16	22.6	3.06	26.9	3.71	31.3	4.39	33.5	4.75	35.6	5.16	39.9	5.82	40.7	5.75
	18	22.6	3.13	26.9	3.80	31.3	4.48	33.5	4.84	35.6	5.26	39.4	5.93	40.2	6.02
	20	22.6	3.17	26.9	3.86	31.3	4.63	33.5	5.09	35.6	5.59	38.8	6.24	39.6	6.34
	21	22.6	3.21	26.9	3.89	31.3	4.78	33.5	5.27	35.6	5.78	38.5	6.46	39.4	6.52
	23	22.6	3.29	26.9	4.16	31.3	5.14	33.5	5.66	35.6	6.22	38.1	6.83	38.8	6.90
	25	22.6	3.50	26.9	4.43	31.3	5.47	33.5	6.03	35.6	6.65	37.4	7.08	38.3	7.15
	27	22.6	3.74	26.9	4.73	31.3	5.87	33.5	6.47	35.6	7.14	36.8	7.33	37.7	7.40
	29	22.6	3.96	26.9	5.05	31.3	6.28	33.5	6.92	35.5	7.56	36.3	7.68	37.2	7.75
	31	22.6	4.21	26.9	5.38	31.3	6.69	33.5	7.45	35.1	7.87	35.5	8.00	36.6	8.07
	33	22.6	4.48	26.9	5.73	31.3	7.14	33.5	7.89	34.5	8.15	35.3	8.23	36.1	8.30
	35	22.6	4.77	26.9	6.10	31.3	7.61	33.5	8.41	33.9	8.45	34.7	8.52	35.5	8.60
	37	22.6	5.08	26.9	6.50	31.3	8.10	32.9	8.71	33.4	8.75	34.2	8.81	35.0	8.89
	39	22.6	5.41	26.9	6.92	31.3	8.63	32.5	9.00	32.6	9.04	33.7	9.11	34.2	9.19
41	21.4	6.00	25.6	7.69	29.8	9.59	31.8	9.75	32.2	9.80	33.0	9.89	33.8	9.98	
44	19.9	6.53	24.2	8.36	28.4	10.65	30.5	11.01	30.9	10.56	31.8	10.40	32.7	10.49	
47	18.8	8.69	23.4	11.12	27.4	11.18	29.4	11.18	29.8	11.24	30.7	11.17	31.6	11.27	
50	17.2	8.53	21.0	10.92	24.5	11.79	26.2	12.95	26.6	12.34	27.4	12.11	28.4	11.87	
52	13.0	7.20	15.6	9.21	18.3	10.04	19.8	11.01	20.3	10.81	21.8	10.66	23.1	10.32	
90%	-5	20.4	2.23	25.2	2.83	33.0	3.49	36.0	3.86	38.5	4.24	40.6	4.54	41.5	4.58
	0	20.4	2.24	25.2	2.83	33.0	3.50	36.0	3.86	38.5	4.25	40.6	4.55	41.5	4.59
	4	20.4	2.25	25.2	2.84	33.0	3.51	36.0	3.88	38.5	4.26	40.6	4.56	41.5	4.60
	7	20.4	2.29	25.2	2.89	33.0	3.57	36.0	3.95	38.5	4.34	40.2	4.65	40.9	4.69
	10	20.4	2.53	24.2	3.04	28.2	3.56	30.1	4.01	32.1	4.27	36.1	4.89	39.9	5.54
	12	20.4	2.56	24.2	3.08	28.2	3.61	30.1	4.06	32.1	4.35	36.1	4.98	39.9	5.61
	14	20.4	2.61	24.2	3.13	28.2	3.67	30.1	4.12	32.1	4.43	36.1	5.06	39.9	5.71
	16	20.4	2.67	24.2	3.20	28.2	3.75	30.1	4.22	32.1	4.53	36.1	5.18	39.8	5.82
	18	20.4	2.73	24.2	3.28	28.2	3.82	30.1	4.30	32.1	4.61	36.1	5.30	39.5	6.03
	20	20.4	2.77	24.2	3.33	28.2	3.95	30.1	4.39	32.1	4.81	36.1	5.69	38.8	6.28
	21	20.4	2.80	24.2	3.36	28.2	4.08	30.1	4.53	32.1	4.97	36.1	5.88	38.5	6.42
	23	20.4	2.87	24.2	3.59	28.2	4.39	30.1	4.87	32.1	5.32	36.1	6.32	37.9	6.75
	25	20.4	3.05	24.2	3.82	28.2	4.67	30.1	5.20	32.1	5.69	36.1	6.76	37.4	7.02
	27	20.4	3.26	24.2	4.08	28.2	5.01	30.1	5.55	32.1	6.09	36.1	7.21	36.8	7.33
	29	20.4	3.45	24.2	4.36	28.2	5.36	30.1	5.93	32.1	6.50	35.7	7.56	36.4	7.63
	31	20.4	3.67	24.2	4.64	28.2	5.72	30.1	6.33	32.1	6.94	35.1	7.84	35.8	7.94
	33	20.4	3.91	24.2	4.94	28.2	6.09	30.1	6.73	32.1	7.38	34.6	8.15	35.3	8.23
	35	20.4	4.16	24.2	5.26	28.2	6.50	30.1	7.18	32.1	7.90	34.0	8.45	34.7	8.53
	37	20.4	4.43	24.2	5.60	28.2	6.92	29.6	7.44	32.1	8.45	33.4	8.75	34.2	8.73
	39	20.4	4.72	24.2	5.97	28.2	7.37	29.2	7.68	32.1	8.96	32.9	9.08	33.6	9.05
41	19.2	5.24	23.0	6.63	26.8	8.19	28.7	8.33	30.5	9.16	32.3	9.80	33.1	9.89	
44	17.9	5.70	21.8	7.21	25.5	9.10	27.4	9.41	29.3	9.87	31.1	10.31	31.9	10.40	
47	16.9	7.58	21.1	9.59	24.7	9.55	26.5	9.55	28.2	10.50	30.1	11.07	30.9	11.17	
50	15.5	7.44	18.9	9.42	22.0	10.07	23.6	11.06	25.2	11.53	26.8	12.00	27.8	11.77	
52	11.7	6.28	14.1	7.95	16.5	8.58	17.8	9.41	19.3	10.11	21.4	10.56	22.6	10.23	

80%	-5	18.1	1.93	22.4	2.38	29.3	2.96	32.0	3.25	34.1	3.56	38.3	4.22	40.5	4.52
	0	18.1	1.93	22.4	2.38	29.3	2.96	32.0	3.26	34.1	3.56	38.3	4.23	40.5	4.53
	4	18.1	1.94	22.4	2.39	29.3	2.97	32.0	3.27	34.1	3.58	38.3	4.25	40.5	4.55
	7	18.1	1.98	22.4	2.44	29.3	3.03	32.0	3.33	34.1	3.64	38.0	4.33	39.9	4.63
	10	18.1	2.30	21.5	2.75	25.1	3.24	26.8	3.49	28.5	3.74	32.1	4.27	35.5	4.96
	12	18.1	2.33	21.5	2.80	25.1	3.30	26.8	3.56	28.5	3.81	32.1	4.34	35.5	4.92
	14	18.1	2.38	21.5	2.86	25.1	3.35	26.8	3.61	28.5	3.88	32.1	4.42	35.5	5.03
	16	18.1	2.41	21.5	2.90	25.1	3.42	26.8	3.68	28.5	3.94	32.1	4.52	35.5	5.21
	18	18.1	2.46	21.5	2.96	25.1	3.50	26.8	3.76	28.5	4.01	32.1	4.62	35.5	5.57
	20	18.1	2.50	21.5	3.01	25.1	3.56	26.8	3.83	28.5	4.10	32.1	4.79	35.5	5.78
	21	18.1	2.53	21.5	3.04	25.1	3.59	26.8	3.87	28.5	4.20	32.1	4.96	35.5	6.18
	23	18.1	2.57	21.5	3.10	25.1	3.76	26.8	4.12	28.5	4.49	32.1	5.30	35.5	6.61
	25	18.1	2.65	21.5	3.30	25.1	4.02	26.8	4.41	28.5	4.79	32.1	5.68	35.5	7.06
	27	18.1	2.82	21.5	3.51	25.1	4.28	26.8	4.70	28.5	5.14	32.1	6.06	35.5	7.31
	29	18.1	3.00	21.5	3.74	25.1	4.57	26.8	5.01	28.4	5.48	32.1	6.47	35.5	7.57
	31	18.1	3.18	21.5	3.98	25.1	4.86	26.8	5.34	28.4	5.84	32.1	6.90	34.9	7.85
	33	18.1	3.39	21.5	4.43	25.1	5.18	26.8	5.69	28.4	6.22	32.1	7.37	34.5	8.13
	35	18.1	3.59	21.5	4.43	25.1	5.51	26.8	6.06	28.4	6.63	32.1	7.86	33.9	8.43
	37	18.1	3.81	21.5	4.77	25.1	5.86	26.3	6.46	28.4	7.06	32.1	8.38	33.4	8.74
	39	18.1	4.03	21.5	5.06	25.1	6.23	26.0	6.87	28.4	7.51	32.1	8.92	32.8	9.06
41	17.1	4.53	20.5	5.58	23.8	6.94	25.5	7.03	27.0	7.69	30.5	9.12	32.3	9.77	
44	15.9	4.92	19.4	6.07	22.7	7.71	24.4	7.94	26.0	8.28	29.4	9.59	31.1	10.28	
47	15.0	6.55	18.7	8.08	21.9	8.09	23.5	8.06	25.0	8.81	28.4	10.30	30.1	11.04	
50	13.7	6.43	16.8	7.93	19.6	8.53	21.0	9.33	22.3	9.67	25.3	11.17	27.1	11.63	
52	10.4	5.42	12.5	6.69	14.7	7.27	15.8	7.94	17.1	8.48	20.2	9.83	22.0	10.11	
70%	-5	15.8	1.64	19.6	2.03	25.6	2.46	28.0	2.70	29.9	2.94	33.5	3.47	37.2	4.03
	0	15.8	1.65	19.6	2.04	25.6	2.47	28.0	2.71	29.9	2.95	33.5	3.47	37.2	4.04
	4	15.8	1.65	19.6	2.04	25.6	2.48	28.0	2.72	29.9	2.96	33.5	3.49	37.2	4.06
	7	15.8	1.68	19.6	2.08	25.6	2.52	28.0	2.77	29.9	3.02	33.2	3.55	36.7	4.13
	10	15.8	2.03	18.8	2.40	21.9	2.80	23.4	3.01	25.0	3.23	28.0	3.67	31.1	4.12
	12	15.8	2.05	18.8	2.44	21.9	2.86	23.4	3.07	25.0	3.29	28.0	3.74	31.1	4.20
	14	15.8	2.08	18.8	2.48	21.9	2.90	23.4	3.12	25.0	3.34	28.0	3.81	31.1	4.28
	16	15.8	2.12	18.8	2.53	21.9	2.96	23.4	3.18	25.0	3.41	28.0	3.87	31.1	4.36
	18	15.8	2.15	18.8	2.57	21.9	3.01	23.4	3.24	25.0	3.47	28.0	3.95	31.1	4.45
	20	15.8	2.19	18.8	2.62	21.9	3.07	23.4	3.30	25.0	3.53	28.0	4.03	31.1	4.58
	21	15.8	2.21	18.8	2.64	21.9	3.09	23.4	3.33	25.0	3.57	28.0	4.08	31.1	4.74
	23	15.8	2.24	18.8	2.69	21.9	3.16	23.4	3.44	25.0	3.75	28.0	4.38	31.1	5.08
	25	15.8	2.29	18.8	2.80	21.9	3.37	23.4	3.68	25.0	4.00	28.0	4.69	31.1	5.43
	27	15.8	2.42	18.8	2.98	21.9	3.59	23.4	3.92	25.0	4.27	28.0	5.01	31.1	5.80
	29	15.8	2.57	18.8	3.16	21.9	3.82	23.4	4.18	25.0	4.54	28.0	5.34	31.1	6.20
	31	15.8	2.72	18.8	3.35	21.9	4.07	23.4	4.44	25.0	4.84	28.0	5.69	31.1	6.61
	33	15.8	2.89	18.8	3.57	21.9	4.33	23.4	4.72	25.0	5.16	28.0	6.06	31.1	7.05
	35	15.8	3.06	18.8	3.78	21.9	4.59	23.4	5.03	25.0	5.48	28.0	6.46	31.1	7.51
	37	15.8	3.23	18.8	4.01	21.9	4.88	23.0	5.35	25.0	5.83	28.0	6.88	31.1	8.00
	39	15.8	3.42	18.8	4.25	21.9	5.18	22.7	5.68	25.0	6.20	28.0	7.31	31.1	8.52
41	15.0	3.85	17.9	4.77	20.8	5.78	22.3	5.84	23.7	6.36	26.7	7.49	29.6	8.71	
44	13.9	4.19	17.0	5.18	19.9	6.42	21.3	6.59	22.8	6.85	25.7	7.88	28.6	9.16	
47	13.1	5.58	16.4	6.90	19.2	6.75	20.6	6.69	22.0	7.29	24.8	8.46	27.7	9.84	
50	12.0	5.48	14.7	6.77	17.1	7.11	18.4	7.75	19.6	8.01	22.2	9.17	24.9	10.37	
52	9.1	4.62	10.9	5.71	12.8	6.06	13.8	6.59	15.0	7.02	17.7	8.07	20.2	9.01	

GMV5 DC Inverter VRF Units Technical Sales Guide

60%	-5	13.6	1.38	16.8	1.69	22.0	2.02	24.0	2.20	25.7	2.39	28.7	2.79	31.9	3.22
	0	13.6	1.38	16.8	1.69	22.0	2.02	24.0	2.21	25.7	2.40	28.7	2.80	31.9	3.23
	4	13.6	1.39	16.8	1.69	22.0	2.03	24.0	2.21	25.7	2.40	28.7	2.81	31.9	3.24
	7	13.6	1.41	16.8	1.73	22.0	2.07	24.0	2.26	25.7	2.45	28.5	2.86	31.5	3.30
	10	13.6	1.76	16.2	2.06	18.8	2.39	20.1	2.56	21.4	2.73	24.0	3.09	26.7	3.47
	12	13.6	1.79	16.2	2.10	18.8	2.44	20.1	2.61	21.4	2.78	24.0	3.15	26.7	3.52
	14	13.6	1.81	16.2	2.13	18.8	2.47	20.1	2.65	21.4	2.83	24.0	3.21	26.7	3.59
	16	13.6	1.84	16.2	2.16	18.8	2.52	20.1	2.70	21.4	2.88	24.0	3.26	26.7	3.66
	18	13.6	1.87	16.2	2.20	18.8	2.56	20.1	2.74	21.4	2.93	24.0	3.32	26.7	3.73
	20	13.6	1.89	16.2	2.24	18.8	2.61	20.1	2.80	21.4	2.99	24.0	3.39	26.7	3.81
	21	13.6	1.91	16.2	2.25	18.8	2.63	20.1	2.82	21.4	3.01	24.0	3.42	26.7	3.84
	23	13.6	1.94	16.2	2.30	18.8	2.67	20.1	2.88	21.4	3.07	24.0	3.56	26.7	4.09
	25	13.6	1.97	16.2	2.35	18.8	2.78	20.1	3.01	21.4	3.26	24.0	3.80	26.7	4.36
	27	13.6	2.05	16.2	2.48	18.8	2.96	20.1	3.22	21.4	3.48	24.0	4.04	26.7	4.66
	29	13.6	2.16	16.2	2.63	18.8	3.15	20.1	3.42	21.4	3.70	24.0	4.32	26.7	4.97
	31	13.6	2.30	16.2	2.80	18.8	3.34	20.1	3.64	21.4	3.94	24.0	4.59	26.7	5.29
	33	13.6	2.42	16.2	2.96	18.8	3.55	20.1	3.86	21.4	4.19	24.0	4.88	26.7	5.64
	35	13.6	2.57	16.2	3.14	18.8	3.76	20.1	4.10	21.4	4.45	24.0	5.20	26.7	6.00
	37	13.6	2.72	16.2	3.32	18.8	3.99	19.7	4.35	21.4	4.72	24.0	5.53	26.7	6.39
	39	13.6	2.87	16.2	3.51	18.8	4.23	19.5	4.61	21.4	5.02	24.0	5.87	26.7	6.80
41	12.8	3.24	15.3	3.95	17.9	4.74	19.1	4.76	20.3	5.17	22.9	6.03	25.4	6.97	
44	11.9	3.52	14.5	4.30	17.0	5.27	18.3	5.37	19.5	5.57	22.0	6.34	24.5	7.33	
47	11.3	4.69	14.1	5.72	16.5	5.53	17.6	5.45	18.8	5.92	21.3	6.81	23.7	7.87	
50	10.3	4.60	12.6	5.62	14.7	5.83	15.7	6.32	16.8	6.50	19.0	7.38	21.3	8.29	
52	7.8	3.88	9.4	4.74	11.0	4.97	11.9	5.37	12.8	5.70	15.1	6.50	17.3	7.21	
50%	-5	11.3	1.14	14.0	1.37	18.3	1.62	20.0	1.75	21.3	1.89	23.9	2.19	26.6	2.51
	0	11.3	1.15	14.0	1.37	18.3	1.62	20.0	1.76	21.3	1.90	23.9	2.19	26.6	2.51
	4	11.3	1.15	14.0	1.38	18.3	1.63	20.0	1.76	21.3	1.90	23.9	2.20	26.6	2.52
	7	11.3	1.17	14.0	1.40	18.3	1.66	20.0	1.79	21.3	1.94	23.7	2.24	26.2	2.57
	10	11.3	1.52	13.5	1.76	15.7	2.01	16.7	2.14	17.8	2.27	20.0	2.55	22.3	2.84
	12	11.3	1.53	13.5	1.78	15.7	2.04	16.7	2.16	17.8	2.31	20.0	2.59	22.3	2.89
	14	11.3	1.55	13.5	1.80	15.7	2.06	16.7	2.21	17.8	2.35	20.0	2.64	22.3	2.95
	16	11.3	1.57	13.5	1.82	15.7	2.10	16.7	2.24	17.8	2.38	20.0	2.69	22.3	2.99
	18	11.3	1.60	13.5	1.86	15.7	2.13	16.7	2.28	17.8	2.42	20.0	2.73	22.3	3.05
	20	11.3	1.62	13.5	1.88	15.7	2.16	16.7	2.32	17.8	2.47	20.0	2.79	22.3	3.10
	21	11.3	1.63	13.5	1.90	15.7	2.19	16.7	2.33	17.8	2.49	20.0	2.81	22.3	3.14
	23	11.3	1.65	13.5	1.93	15.7	2.22	16.7	2.38	17.8	2.54	20.0	2.86	22.3	3.21
	25	11.3	1.68	13.5	1.96	15.7	2.27	16.7	2.42	17.8	2.62	20.0	3.00	22.3	3.42
	27	11.3	1.71	13.5	2.04	15.7	2.39	16.7	2.58	17.8	2.78	20.0	3.20	22.3	3.65
	29	11.3	1.80	13.5	2.15	15.7	2.54	16.7	2.74	17.8	2.96	20.0	3.40	22.3	3.89
	31	11.3	1.90	13.5	2.28	15.7	2.71	16.7	2.91	17.8	3.14	20.0	3.61	22.3	4.14
	33	11.3	2.02	13.5	2.41	15.7	2.86	16.7	3.08	17.8	3.33	20.0	3.84	22.3	4.40
	35	11.3	2.13	13.5	2.55	15.7	3.01	16.7	3.26	17.8	3.52	20.0	4.08	22.3	4.67
	37	11.3	2.24	13.5	2.70	15.7	3.20	16.5	3.46	17.8	3.74	20.0	4.33	22.3	4.96
	39	11.3	2.37	13.5	2.84	15.7	3.38	16.2	3.66	17.8	3.97	20.0	4.59	22.3	5.27
41	10.7	2.68	12.8	3.21	14.9	3.80	15.9	3.79	16.9	4.09	19.1	4.73	21.2	5.41	
44	9.9	2.92	12.1	3.49	14.2	4.22	15.2	4.27	16.2	4.40	18.3	4.98	20.5	5.69	
47	9.4	3.88	11.7	4.65	13.7	4.43	14.7	4.34	15.6	4.69	17.7	5.34	19.8	6.12	
50	8.6	3.81	10.5	4.56	12.2	4.67	13.1	5.03	13.9	5.14	15.8	5.79	17.8	6.44	
52	6.5	3.22	7.8	3.85	9.2	3.98	9.9	4.27	10.7	4.51	12.6	5.10	14.5	5.60	

GMV-400WM/B-X

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

Combination	Outdoor air temp. (°CDB)	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20.0°CDB		23.0°CDB		26.0°CDB		27.0°CDB		28.0°CDB		30.0°CDB		32.0°CDB	
		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
135%	-5	35.1	4.71	41.9	5.73	48.6	5.80	50.4	5.83	51.4	5.86	52.7	5.93	54.3	6.00
	0	35.1	4.72	41.9	5.74	48.6	5.81	50.4	5.84	51.4	5.88	52.7	5.94	54.3	6.01
	4	35.1	4.73	41.9	5.77	48.6	5.83	50.4	5.87	51.4	5.90	52.7	5.97	54.3	6.03
	7	35.1	4.82	41.9	5.87	48.6	5.94	50.4	5.97	51.4	6.01	52.3	6.08	53.6	6.14
	10	35.1	4.91	41.9	6.00	48.6	7.13	50.4	7.29	51.0	7.15	52.3	6.84	53.6	6.53
	12	35.1	4.99	41.9	6.11	48.6	7.28	49.7	7.25	50.4	7.10	51.6	6.79	52.9	6.69
	14	35.1	5.09	41.9	6.23	48.4	7.36	49.1	7.22	49.7	7.06	51.0	7.00	52.3	7.07
	16	35.1	5.18	41.9	6.36	47.9	7.33	48.4	7.28	49.0	7.30	50.3	7.38	51.6	7.45
	18	35.1	5.28	41.9	6.49	47.1	7.61	47.7	7.65	48.4	7.69	49.7	7.76	51.0	7.84
	20	35.1	5.40	41.9	6.90	46.4	7.98	47.1	8.02	47.7	8.06	49.0	8.14	50.3	8.22
	21	35.1	5.54	41.9	7.15	46.1	8.17	46.9	8.21	47.4	8.25	48.7	8.34	50.0	8.41
	23	35.1	5.94	41.9	7.66	45.6	8.54	46.1	8.58	46.7	8.62	48.0	8.71	49.3	8.80
	25	35.1	6.34	41.9	8.21	44.9	8.91	45.6	8.95	46.1	9.01	47.4	9.10	48.7	9.18
	27	35.1	6.77	41.9	8.78	44.3	7.85	44.9	9.34	45.4	9.38	46.7	9.49	48.0	9.59
	29	35.1	7.23	41.9	9.38	43.6	9.66	44.1	9.71	44.9	9.77	46.1	9.87	47.4	9.97
	31	35.1	7.72	41.7	9.93	42.9	10.05	43.6	10.10	44.1	10.15	45.4	10.26	46.7	10.38
	33	35.1	8.22	41.0	10.30	42.3	10.40	42.9	10.48	43.6	10.53	44.9	10.65	46.0	10.78
	35	35.1	8.77	40.3	10.68	41.6	10.81	42.3	10.86	42.9	10.92	44.1	11.05	45.4	11.16
	37	35.1	9.33	39.7	11.06	41.0	11.19	41.6	11.25	42.3	11.32	43.4	11.45	44.7	11.58
	39	35.1	9.93	39.0	11.44	40.3	11.57	41.0	11.64	41.6	11.71	42.9	11.84	44.1	11.98
41	33.2	11.05	38.3	13.45	39.5	13.61	40.2	12.60	40.8	12.67	42.0	12.82	43.3	12.95	
44	30.9	12.01	36.3	14.63	37.6	15.13	38.5	14.23	39.1	13.65	40.4	13.48	41.8	13.62	
47	29.2	15.98	35.0	19.46	36.4	15.88	37.1	14.45	37.7	14.52	39.1	14.47	40.4	14.63	
50	26.7	15.69	31.4	19.11	32.5	16.75	33.1	16.73	33.6	15.94	34.9	15.69	36.3	15.41	
52	20.2	13.24	23.4	16.12	24.3	14.26	24.9	14.23	25.7	13.98	27.8	13.81	29.5	13.40	
120%	-5	32.4	4.19	40.1	5.42	47.7	5.76	49.4	5.79	50.6	5.83	51.7	5.89	53.1	5.95
	0	32.4	4.20	40.1	5.44	47.7	5.77	49.4	5.81	50.6	5.84	51.7	5.90	53.1	5.96
	4	32.4	4.22	40.1	5.46	47.7	5.80	49.4	5.83	50.6	5.86	51.7	5.92	53.1	5.98
	7	32.4	4.29	40.1	5.56	47.7	5.90	49.4	5.94	50.6	5.97	51.3	6.03	52.4	6.09
	10	32.4	4.48	38.6	5.47	44.9	6.50	48.0	7.03	50.3	7.33	51.4	7.05	52.6	6.77
	12	32.4	4.56	38.6	5.57	44.9	6.63	48.0	7.16	49.6	7.29	50.7	7.02	51.9	6.73
	14	32.4	4.65	38.6	5.68	44.9	6.76	48.0	7.30	48.9	7.25	50.1	6.97	51.3	7.02
	16	32.4	4.74	38.6	5.80	44.9	6.89	47.7	7.36	48.3	7.26	49.4	7.33	50.6	7.39
	18	32.4	4.82	38.6	5.91	44.9	7.13	47.0	7.61	47.6	7.63	48.7	7.71	50.0	7.78
	20	32.4	4.92	38.6	6.14	44.9	7.66	46.4	7.98	47.0	8.01	48.1	8.08	49.3	8.15
	21	32.4	4.97	38.6	6.36	44.9	7.94	46.0	8.17	46.6	8.19	47.9	8.27	49.0	8.35
	23	32.4	5.31	38.6	6.82	44.9	8.50	45.4	8.52	46.0	8.57	47.1	8.65	48.3	8.72
	25	32.4	5.67	38.6	7.29	44.1	8.87	44.7	8.90	45.3	8.94	46.6	9.03	47.7	9.11
	27	32.4	6.06	38.6	7.79	43.6	9.23	44.1	9.28	44.7	9.33	45.9	9.41	47.0	9.50
	29	32.4	6.46	38.6	8.32	42.9	9.60	43.4	9.66	44.0	9.70	45.1	9.80	46.4	9.89
	31	32.4	6.89	38.6	8.88	42.3	9.99	42.9	10.03	43.4	10.09	44.6	10.19	45.7	10.29
	33	32.4	7.33	38.6	9.49	41.6	10.36	42.1	10.42	42.7	10.46	43.9	10.58	45.0	10.68
	35	32.4	7.81	38.6	10.10	40.9	10.73	41.4	10.79	42.1	10.85	43.3	10.96	44.4	11.08
	37	32.4	8.31	38.6	10.76	40.3	11.12	40.9	11.18	41.4	11.24	42.6	11.35	43.7	11.48
	39	32.4	8.84	38.4	11.37	39.6	11.49	40.1	11.57	40.7	11.62	42.0	11.75	43.1	11.87
41	30.6	9.84	36.6	12.73	38.8	13.52	39.4	12.52	40.1	12.58	41.2	12.72	42.3	12.85	
44	28.5	10.69	34.7	13.84	37.0	15.03	37.7	14.14	38.5	13.56	39.7	13.38	40.9	13.52	
47	26.9	14.23	33.6	18.42	35.8	15.78	36.4	14.35	37.1	14.43	38.3	14.36	39.5	14.51	
50	24.6	13.97	30.1	18.08	31.9	16.64	32.4	16.62	33.1	15.84	34.2	15.57	35.5	15.29	
52	18.7	11.79	22.4	15.25	23.9	14.17	24.4	14.14	25.3	13.89	27.3	13.70	28.9	13.29	

GMV5 DC Inverter VRF Units Technical Sales Guide

110%	-5	29.7	3.71	36.8	4.77	47.1	5.73	48.6	5.76	49.5	5.79	50.5	5.84	51.9	5.90
	0	29.7	3.71	36.8	4.78	47.1	5.74	48.6	5.77	49.5	5.80	50.5	5.85	51.9	5.91
	4	29.7	3.73	36.8	4.80	47.1	5.76	48.6	5.79	49.5	5.82	50.5	5.87	51.9	5.93
	7	29.7	3.80	36.8	4.89	47.1	5.86	48.6	5.90	49.5	5.93	50.1	5.98	51.2	6.04
	10	29.7	4.06	35.4	4.95	41.1	5.88	44.0	6.36	46.9	6.84	50.4	7.26	51.6	7.02
	12	29.7	4.15	35.4	5.05	41.1	6.00	44.0	6.49	46.9	6.97	49.9	7.23	50.9	6.97
	14	29.7	4.22	35.4	5.14	41.1	6.11	44.0	6.60	46.9	7.10	49.1	7.23	50.3	6.96
	16	29.7	4.29	35.4	5.24	41.1	6.23	44.0	6.73	46.9	7.25	48.6	7.28	49.6	7.35
	18	29.7	4.38	35.4	5.34	41.1	6.36	44.0	6.92	46.9	7.59	47.9	7.65	49.0	7.72
	20	29.7	4.46	35.4	5.45	41.1	6.73	44.0	7.43	46.1	7.96	47.3	8.02	48.3	8.09
	21	29.7	4.51	35.4	5.61	41.1	6.97	44.0	7.71	45.9	8.15	46.9	8.21	48.0	8.28
	23	29.7	4.72	35.4	6.01	41.1	7.48	44.0	8.27	45.1	8.51	46.3	8.60	47.3	8.67
	25	29.7	5.02	35.4	6.43	41.1	7.99	44.0	8.85	44.6	8.88	45.6	8.97	46.7	9.04
	27	29.7	5.37	35.4	6.87	41.1	8.55	43.3	9.23	43.9	9.26	45.0	9.34	46.0	9.43
	29	29.7	5.73	35.4	7.33	41.1	9.14	42.7	9.60	43.3	9.64	44.3	9.73	45.4	9.82
	31	29.7	6.10	35.4	7.82	41.1	9.76	42.0	9.97	42.6	10.02	43.7	10.10	44.7	10.20
	33	29.7	6.49	35.4	8.34	40.9	10.29	41.4	10.35	42.0	10.39	43.0	10.49	44.1	10.59
	35	29.7	6.90	35.4	8.88	40.3	10.66	40.7	10.72	41.3	10.78	42.3	10.88	43.4	10.98
	37	29.7	7.35	35.4	9.46	39.6	11.05	40.1	11.09	40.6	11.15	41.7	11.26	42.7	11.37
	39	29.7	7.81	35.4	10.07	38.9	11.42	39.4	11.48	40.0	11.54	41.0	11.65	42.1	11.77
41	28.1	8.70	33.7	11.19	38.3	13.43	38.7	12.43	39.3	12.50	40.3	12.62	41.4	12.73	
44	26.1	9.46	31.9	12.17	36.5	14.93	37.1	14.04	37.7	13.47	38.7	13.27	40.0	13.39	
47	24.7	12.58	30.8	16.19	35.3	15.67	35.7	14.26	36.3	14.33	37.4	14.25	38.7	14.38	
50	22.6	12.36	27.6	15.90	31.5	16.53	31.9	16.51	32.4	15.73	33.4	15.45	34.7	15.15	
52	17.1	10.42	20.5	13.41	23.6	14.07	24.0	14.04	24.8	13.79	26.6	13.60	28.2	13.17	
100%	-5	27.0	3.24	33.4	4.15	43.7	5.17	47.7	5.72	48.5	5.75	49.4	5.80	50.7	5.85
	0	27.0	3.25	33.4	4.16	43.7	5.18	47.7	5.73	48.5	5.76	49.4	5.81	50.7	5.86
	4	27.0	3.26	33.4	4.17	43.7	5.20	47.7	5.75	48.5	5.78	49.4	5.83	50.7	5.88
	7	27.0	3.32	33.4	4.25	43.7	5.30	47.7	5.86	48.5	5.89	49.0	5.94	50.0	5.99
	10	27.0	3.67	32.1	4.46	37.4	5.28	40.0	5.70	42.6	6.15	47.8	6.97	50.6	7.24
	12	27.0	3.72	32.1	4.52	37.4	5.35	40.0	5.77	42.6	6.27	47.8	7.09	49.8	7.18
	14	27.0	3.79	32.1	4.60	37.4	5.44	40.0	5.88	42.6	6.39	47.8	7.21	49.3	7.12
	16	27.0	3.87	32.1	4.70	37.4	5.56	40.0	6.01	42.6	6.53	47.7	7.37	48.6	7.29
	18	27.0	3.96	32.1	4.81	37.4	5.67	40.0	6.13	42.6	6.66	47.0	7.51	48.0	7.63
	20	27.0	4.02	32.1	4.88	37.4	5.86	40.0	6.45	42.6	7.08	46.3	7.91	47.3	8.03
	21	27.0	4.06	32.1	4.93	37.4	6.06	40.0	6.67	42.6	7.33	46.0	8.18	47.0	8.25
	23	27.0	4.16	32.1	5.27	37.4	6.51	40.0	7.17	42.6	7.88	45.4	8.66	46.3	8.73
	25	27.0	4.43	32.1	5.61	37.4	6.93	40.0	7.63	42.6	8.43	44.7	8.97	45.7	9.05
	27	27.0	4.73	32.1	5.99	37.4	7.44	40.0	8.19	42.6	9.04	44.0	9.28	45.0	9.37
	29	27.0	5.01	32.1	6.40	37.4	7.95	40.0	8.76	42.4	9.58	43.4	9.73	44.4	9.82
	31	27.0	5.33	32.1	6.81	37.4	8.48	40.0	9.44	41.9	9.96	42.4	10.13	43.7	10.22
	33	27.0	5.67	32.1	7.26	37.4	9.04	40.0	9.99	41.1	10.33	42.2	10.42	43.1	10.51
	35	27.0	6.04	32.1	7.73	37.4	9.64	40.0	10.65	40.4	10.70	41.4	10.80	42.4	10.89
	37	27.0	6.43	32.1	8.23	37.4	10.26	39.3	11.03	39.9	11.09	40.8	11.16	41.8	11.26
	39	27.0	6.85	32.1	8.77	37.4	10.93	38.8	11.40	39.0	11.45	40.3	11.53	40.8	11.64
41	25.5	7.61	30.5	9.74	35.6	12.14	38.0	12.35	38.4	12.41	39.4	12.52	40.4	12.64	
44	23.8	8.27	28.9	10.59	33.9	13.49	36.4	13.95	36.9	13.38	37.9	13.17	39.0	13.29	
47	22.4	11.00	28.0	14.09	32.8	14.17	35.1	14.16	35.6	14.23	36.6	14.14	37.7	14.27	
50	20.5	10.80	25.1	13.83	29.2	14.94	31.3	16.40	31.7	15.62	32.7	15.33	33.9	15.03	
52	15.6	9.11	18.6	11.67	21.9	12.72	23.6	13.95	24.3	13.70	26.1	13.50	27.6	13.07	

90%	-5	24.3	2.83	30.1	3.58	39.4	4.42	42.9	4.88	46.0	5.37	48.5	5.75	49.5	5.80
	0	24.3	2.83	30.1	3.59	39.4	4.43	42.9	4.89	46.0	5.38	48.5	5.76	49.5	5.81
	4	24.3	2.84	30.1	3.60	39.4	4.44	42.9	4.91	46.0	5.40	48.5	5.78	49.5	5.83
	7	24.3	2.90	30.1	3.67	39.4	4.53	42.9	5.00	46.0	5.50	48.1	5.89	48.9	5.94
	10	24.3	3.21	28.9	3.85	33.7	4.51	36.0	5.08	38.3	5.41	43.1	6.19	47.7	7.02
	12	24.3	3.25	28.9	3.90	33.7	4.57	36.0	5.15	38.3	5.51	43.1	6.30	47.7	7.11
	14	24.3	3.30	28.9	3.97	33.7	4.65	36.0	5.22	38.3	5.61	43.1	6.41	47.7	7.23
	16	24.3	3.38	28.9	4.06	33.7	4.75	36.0	5.34	38.3	5.73	43.1	6.56	47.6	7.37
	18	24.3	3.45	28.9	4.15	33.7	4.84	36.0	5.44	38.3	5.84	43.1	6.71	47.1	7.63
	20	24.3	3.51	28.9	4.21	33.7	5.00	36.0	5.56	38.3	6.09	43.1	7.21	46.3	7.95
	21	24.3	3.54	28.9	4.25	33.7	5.17	36.0	5.74	38.3	6.30	43.1	7.45	46.0	8.13
	23	24.3	3.63	28.9	4.54	33.7	5.56	36.0	6.17	38.3	6.74	43.1	8.01	45.3	8.55
	25	24.3	3.86	28.9	4.83	33.7	5.92	36.0	6.59	38.3	7.21	43.1	8.56	44.7	8.90
	27	24.3	4.13	28.9	5.17	33.7	6.35	36.0	7.03	38.3	7.72	43.1	9.14	44.0	9.29
	29	24.3	4.37	28.9	5.52	33.7	6.79	36.0	7.51	38.3	8.24	42.6	9.58	43.4	9.66
	31	24.3	4.65	28.9	5.88	33.7	7.24	36.0	8.02	38.3	8.79	41.9	9.93	42.7	10.06
	33	24.3	4.95	28.9	6.26	33.7	7.72	36.0	8.53	38.3	9.35	41.3	10.33	42.1	10.42
	35	24.3	5.27	28.9	6.67	33.7	8.23	36.0	9.09	38.3	10.00	40.6	10.70	41.4	10.80
	37	24.3	5.61	28.9	7.10	33.7	8.76	35.4	9.42	38.3	10.70	39.9	11.09	40.9	11.06
	39	24.3	5.97	28.9	7.56	33.7	9.33	34.9	9.73	38.3	11.34	39.3	11.50	40.1	11.47
41	23.0	6.64	27.5	8.40	32.0	10.37	34.2	10.55	36.4	11.60	38.6	12.42	39.5	12.53	
44	21.4	7.21	26.0	9.13	30.5	11.52	32.8	11.91	35.0	12.50	37.2	13.06	38.1	13.17	
47	20.2	9.60	25.2	12.15	29.5	12.10	31.6	12.09	33.7	13.30	35.9	14.02	36.9	14.15	
50	18.5	9.43	22.6	11.93	26.3	12.76	28.2	14.00	30.1	14.60	32.1	15.20	33.1	14.90	
52	14.0	7.95	16.8	10.07	19.7	10.86	21.2	11.91	23.0	12.80	25.6	13.38	26.9	12.96	
80%	-5	21.6	2.44	26.7	3.01	35.0	3.75	38.2	4.12	40.7	4.51	45.7	5.35	48.3	5.73
	0	21.6	2.45	26.7	3.02	35.0	3.75	38.2	4.13	40.7	4.51	45.7	5.36	48.3	5.74
	4	21.6	2.46	26.7	3.03	35.0	3.77	38.2	4.15	40.7	4.53	45.7	5.38	48.3	5.76
	7	21.6	2.50	26.7	3.09	35.0	3.84	38.2	4.22	40.7	4.62	45.3	5.48	47.7	5.87
	10	21.6	2.91	25.7	3.49	29.9	4.10	32.0	4.42	34.1	4.73	38.3	5.41	42.4	6.28
	12	21.6	2.96	25.7	3.54	29.9	4.18	32.0	4.51	34.1	4.82	38.3	5.50	42.4	6.23
	14	21.6	3.01	25.7	3.62	29.9	4.25	32.0	4.58	34.1	4.91	38.3	5.60	42.4	6.37
	16	21.6	3.06	25.7	3.67	29.9	4.33	32.0	4.66	34.1	4.99	38.3	5.72	42.4	6.60
	18	21.6	3.11	25.7	3.75	29.9	4.43	32.0	4.76	34.1	5.08	38.3	5.85	42.4	7.06
	20	21.6	3.17	25.7	3.82	29.9	4.51	32.0	4.85	34.1	5.20	38.3	6.06	42.4	7.31
	21	21.6	3.20	25.7	3.85	29.9	4.55	32.0	4.91	34.1	5.32	38.3	6.28	42.4	7.83
	23	21.6	3.26	25.7	3.93	29.9	4.76	32.0	5.22	34.1	5.68	38.3	6.72	42.4	8.38
	25	21.6	3.36	25.7	4.18	29.9	5.09	32.0	5.58	34.1	6.07	38.3	7.19	42.4	8.94
	27	21.6	3.57	25.7	4.45	29.9	5.42	32.0	5.96	34.1	6.51	38.3	7.68	42.4	9.25
	29	21.6	3.80	25.7	4.74	29.9	5.78	32.0	6.34	33.9	6.94	38.3	8.19	42.4	9.59
	31	21.6	4.03	25.7	5.04	29.9	6.16	32.0	6.76	33.9	7.40	38.3	8.74	41.7	9.94
	33	21.6	4.29	25.7	5.61	29.9	6.56	32.0	7.20	33.9	7.88	38.3	9.33	41.1	10.30
	35	21.6	4.55	25.7	5.61	29.9	6.97	32.0	7.68	33.9	8.39	38.3	9.96	40.4	10.67
	37	21.6	4.82	25.7	6.04	29.9	7.42	31.4	8.18	33.9	8.94	38.3	10.61	39.9	11.07
	39	21.6	5.11	25.7	6.41	29.9	7.89	31.0	8.71	33.9	9.52	38.3	11.30	39.1	11.48
41	20.4	5.73	24.4	7.07	28.5	8.79	30.4	8.91	32.3	9.73	36.4	11.55	38.5	12.38	
44	19.0	6.23	23.1	7.69	27.1	9.76	29.1	10.06	31.0	10.49	35.1	12.15	37.2	13.02	
47	17.9	8.29	22.4	10.23	26.2	10.25	28.1	10.21	29.9	11.16	33.9	13.05	36.0	13.98	
50	16.4	8.14	20.1	10.04	23.4	10.81	25.1	11.82	26.6	12.25	30.2	14.14	32.3	14.73	
52	12.4	6.87	14.9	8.47	17.5	9.21	18.9	10.06	20.4	10.74	24.1	12.45	26.3	12.81	

GMV5 DC Inverter VRF Units Technical Sales Guide

70%	-5	18.9	2.08	23.4	2.57	30.6	3.12	33.4	3.42	35.8	3.73	40.0	4.39	44.4	5.11
	0	18.9	2.08	23.4	2.58	30.6	3.13	33.4	3.43	35.8	3.74	40.0	4.40	44.4	5.12
	4	18.9	2.09	23.4	2.59	30.6	3.14	33.4	3.44	35.8	3.75	40.0	4.42	44.4	5.14
	7	18.9	2.13	23.4	2.64	30.6	3.20	33.4	3.50	35.8	3.82	39.7	4.50	43.8	5.23
	10	18.9	2.57	22.5	3.04	26.2	3.54	28.0	3.82	29.8	4.09	33.5	4.65	37.1	5.22
	12	18.9	2.60	22.5	3.09	26.2	3.62	28.0	3.89	29.8	4.16	33.5	4.74	37.1	5.32
	14	18.9	2.64	22.5	3.14	26.2	3.67	28.0	3.95	29.8	4.23	33.5	4.82	37.1	5.42
	16	18.9	2.68	22.5	3.20	26.2	3.75	28.0	4.03	29.8	4.32	33.5	4.91	37.1	5.52
	18	18.9	2.73	22.5	3.26	26.2	3.82	28.0	4.10	29.8	4.39	33.5	5.01	37.1	5.64
	20	18.9	2.77	22.5	3.31	26.2	3.89	28.0	4.18	29.8	4.48	33.5	5.11	37.1	5.80
	21	18.9	2.80	22.5	3.34	26.2	3.92	28.0	4.22	29.8	4.52	33.5	5.17	37.1	6.00
	23	18.9	2.84	22.5	3.40	26.2	4.00	28.0	4.36	29.8	4.75	33.5	5.55	37.1	6.43
	25	18.9	2.90	22.5	3.54	26.2	4.26	28.0	4.66	29.8	5.07	33.5	5.94	37.1	6.87
	27	18.9	3.07	22.5	3.77	26.2	4.55	28.0	4.97	29.8	5.41	33.5	6.34	37.1	7.35
	29	18.9	3.26	22.5	4.00	26.2	4.84	28.0	5.30	29.8	5.75	33.5	6.76	37.1	7.85
	31	18.9	3.44	22.5	4.25	26.2	5.15	28.0	5.63	29.8	6.13	33.5	7.20	37.1	8.37
	33	18.9	3.66	22.5	4.52	26.2	5.48	28.0	5.98	29.8	6.53	33.5	7.68	37.1	8.93
	35	18.9	3.87	22.5	4.79	26.2	5.81	28.0	6.37	29.8	6.95	33.5	8.18	37.1	9.51
	37	18.9	4.09	22.5	5.08	26.2	6.18	27.5	6.77	29.8	7.39	33.5	8.71	37.1	10.13
	39	18.9	4.33	22.5	5.38	26.2	6.56	27.1	7.19	29.8	7.85	33.5	9.26	37.1	10.79
41	17.9	4.88	21.4	6.04	24.9	7.32	26.6	7.39	28.3	8.06	31.9	9.49	35.4	11.04	
44	16.6	5.31	20.3	6.57	23.7	8.14	25.5	8.35	27.2	8.68	30.7	9.98	34.2	11.61	
47	15.7	7.06	19.6	8.74	22.9	8.54	24.6	8.47	26.2	9.24	29.6	10.72	33.1	12.46	
50	14.4	6.94	17.6	8.58	20.5	9.01	21.9	9.81	23.4	10.14	26.5	11.61	29.7	13.13	
52	10.9	5.85	13.1	7.24	15.3	7.67	16.5	8.35	17.9	8.89	21.1	10.22	24.1	11.42	
60%	-5	16.2	1.75	20.0	2.13	26.2	2.56	28.6	2.79	30.6	3.03	34.3	3.54	38.1	4.08
	0	16.2	1.75	20.0	2.14	26.2	2.56	28.6	2.79	30.6	3.03	34.3	3.54	38.1	4.09
	4	16.2	1.76	20.0	2.15	26.2	2.57	28.6	2.81	30.6	3.05	34.3	3.56	38.1	4.11
	7	16.2	1.79	20.0	2.19	26.2	2.62	28.6	2.86	30.6	3.10	34.0	3.62	37.6	4.18
	10	16.2	2.22	19.3	2.61	22.5	3.03	24.0	3.24	25.5	3.46	28.7	3.92	31.9	4.39
	12	16.2	2.27	19.3	2.65	22.5	3.09	24.0	3.30	25.5	3.52	28.7	3.99	31.9	4.46
	14	16.2	2.30	19.3	2.70	22.5	3.13	24.0	3.36	25.5	3.59	28.7	4.06	31.9	4.55
	16	16.2	2.32	19.3	2.74	22.5	3.19	24.0	3.42	25.5	3.64	28.7	4.13	31.9	4.64
	18	16.2	2.37	19.3	2.78	22.5	3.24	24.0	3.47	25.5	3.72	28.7	4.20	31.9	4.72
	20	16.2	2.40	19.3	2.84	22.5	3.30	24.0	3.54	25.5	3.79	28.7	4.29	31.9	4.82
	21	16.2	2.43	19.3	2.86	22.5	3.33	24.0	3.57	25.5	3.82	28.7	4.33	31.9	4.86
	23	16.2	2.45	19.3	2.91	22.5	3.39	24.0	3.64	25.5	3.89	28.7	4.51	31.9	5.18
	25	16.2	2.50	19.3	2.97	22.5	3.52	24.0	3.82	25.5	4.13	28.7	4.81	31.9	5.52
	27	16.2	2.60	19.3	3.14	22.5	3.75	24.0	4.08	25.5	4.41	28.7	5.12	31.9	5.90
	29	16.2	2.74	19.3	3.33	22.5	3.99	24.0	4.33	25.5	4.69	28.7	5.47	31.9	6.30
	31	16.2	2.91	19.3	3.54	22.5	4.23	24.0	4.61	25.5	4.99	28.7	5.81	31.9	6.70
	33	16.2	3.07	19.3	3.75	22.5	4.49	24.0	4.89	25.5	5.31	28.7	6.18	31.9	7.15
	35	16.2	3.26	19.3	3.97	22.5	4.76	24.0	5.19	25.5	5.64	28.7	6.59	31.9	7.61
	37	16.2	3.44	19.3	4.20	22.5	5.05	23.6	5.51	25.5	5.98	28.7	7.00	31.9	8.09
	39	16.2	3.63	19.3	4.45	22.5	5.35	23.3	5.84	25.5	6.36	28.7	7.43	31.9	8.61
41	15.3	4.10	18.3	5.01	21.3	6.00	22.8	6.03	24.3	6.54	27.3	7.64	30.4	8.82	
44	14.3	4.46	17.4	5.45	20.3	6.67	21.8	6.81	23.3	7.05	26.3	8.04	29.3	9.28	
47	13.4	5.94	16.8	7.25	19.7	7.00	21.1	6.91	22.5	7.50	25.4	8.63	28.4	9.96	
50	12.3	5.83	15.0	7.12	17.5	7.38	18.8	8.00	20.0	8.23	22.7	9.35	25.5	10.50	
52	9.3	4.92	11.2	6.00	13.1	6.29	14.2	6.81	15.3	7.22	18.1	8.23	20.7	9.13	

50%	-5	13.5	1.45	16.7	1.73	21.9	2.05	23.9	2.22	25.5	2.40	28.6	2.77	31.8	3.17
	0	13.5	1.45	16.7	1.74	21.9	2.05	23.9	2.22	25.5	2.40	28.6	2.78	31.8	3.18
	4	13.5	1.46	16.7	1.74	21.9	2.06	23.9	2.23	25.5	2.41	28.6	2.79	31.8	3.19
	7	13.5	1.48	16.7	1.78	21.9	2.10	23.9	2.27	25.5	2.45	28.3	2.84	31.3	3.25
	10	13.5	1.92	16.1	2.22	18.7	2.54	20.0	2.71	21.3	2.87	23.9	3.23	26.6	3.60
	12	13.5	1.94	16.1	2.25	18.7	2.58	20.0	2.74	21.3	2.93	23.9	3.29	26.6	3.66
	14	13.5	1.97	16.1	2.28	18.7	2.61	20.0	2.80	21.3	2.97	23.9	3.34	26.6	3.73
	16	13.5	1.99	16.1	2.31	18.7	2.65	20.0	2.84	21.3	3.01	23.9	3.40	26.6	3.79
	18	13.5	2.02	16.1	2.35	18.7	2.70	20.0	2.88	21.3	3.07	23.9	3.46	26.6	3.86
	20	13.5	2.05	16.1	2.38	18.7	2.74	20.0	2.94	21.3	3.13	23.9	3.53	26.6	3.93
	21	13.5	2.07	16.1	2.41	18.7	2.77	20.0	2.96	21.3	3.16	23.9	3.56	26.6	3.97
	23	13.5	2.10	16.1	2.44	18.7	2.81	20.0	3.01	21.3	3.21	23.9	3.62	26.6	4.06
	25	13.5	2.12	16.1	2.48	18.7	2.87	20.0	3.07	21.3	3.31	23.9	3.80	26.6	4.33
	27	13.5	2.17	16.1	2.58	18.7	3.03	20.0	3.27	21.3	3.52	23.9	4.05	26.6	4.62
	29	13.5	2.28	16.1	2.73	18.7	3.21	20.0	3.47	21.2	3.75	23.9	4.31	26.6	4.92
	31	13.5	2.41	16.1	2.88	18.7	3.43	20.0	3.69	21.2	3.97	23.9	4.58	26.6	5.24
	33	13.5	2.55	16.1	3.06	18.7	3.62	20.0	3.90	21.2	4.22	23.9	4.86	26.6	5.57
	35	13.5	2.70	16.1	3.23	18.7	3.82	20.0	4.13	21.2	4.46	23.9	5.17	26.6	5.91
	37	13.5	2.84	16.1	3.42	18.7	4.05	19.6	4.38	21.2	4.74	23.9	5.48	26.6	6.29
	39	13.5	3.00	16.1	3.60	18.7	4.28	19.4	4.64	21.2	5.02	23.9	5.81	26.6	6.67
41	12.8	3.40	15.3	4.07	17.8	4.81	19.0	4.79	20.2	5.18	22.8	5.99	25.3	6.86	
44	11.9	3.70	14.5	4.42	16.9	5.34	18.2	5.41	19.4	5.58	21.9	6.30	24.4	7.21	
47	11.2	4.92	14.0	5.89	16.4	5.61	17.6	5.50	18.7	5.94	21.2	6.77	23.6	7.74	
50	10.3	4.83	12.5	5.78	14.6	5.92	15.7	6.36	16.7	6.52	18.9	7.34	21.3	8.16	
52	7.8	4.07	9.3	4.88	10.9	5.04	11.8	5.41	12.7	5.71	15.1	6.46	17.3	7.09	

GMV-450WM/B-X

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

Combination	Outdoor air temp. (°CDB)	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20.0°CDB		23.0°CDB		26.0°CDB		27.0°CDB		28.0°CDB		30.0°CDB		32.0°CDB	
		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	
135%	-5	39.5	5.59	47.1	6.81	54.6	6.89	56.7	6.93	57.9	6.97	59.3	7.05	61.1	7.12
	0	39.5	5.60	47.1	6.82	54.6	6.91	56.7	6.94	57.9	6.98	59.3	7.06	61.1	7.14
	4	39.5	5.63	47.1	6.85	54.6	6.93	56.7	6.97	57.9	7.01	59.3	7.09	61.1	7.16
	7	39.5	5.73	47.1	6.98	54.6	7.06	56.7	7.10	57.9	7.14	58.8	7.22	60.3	7.30
	10	39.5	5.83	47.1	7.13	54.6	8.47	56.7	8.66	57.4	8.49	58.8	8.13	60.3	7.76
	12	39.5	5.93	47.1	7.26	54.6	8.64	55.9	8.61	56.7	8.44	58.0	8.06	59.5	7.95
	14	39.5	6.05	47.1	7.40	54.5	8.75	55.3	8.58	55.9	8.39	57.4	8.32	58.8	8.41
	16	39.5	6.16	47.1	7.55	53.8	8.71	54.5	8.64	55.1	8.68	56.6	8.76	58.0	8.85
	18	39.5	6.27	47.1	7.71	53.0	9.04	53.7	9.09	54.5	9.14	55.9	9.22	57.4	9.31
	20	39.5	6.41	47.1	8.20	52.2	9.48	53.0	9.53	53.7	9.58	55.1	9.67	56.6	9.77
	21	39.5	6.58	47.1	8.49	51.9	9.70	52.7	9.75	53.4	9.80	54.8	9.91	56.2	9.99
	23	39.5	7.06	47.1	9.10	51.3	10.14	51.9	10.20	52.6	10.25	54.0	10.35	55.4	10.45
	25	39.5	7.54	47.1	9.75	50.5	10.59	51.3	10.64	51.9	10.71	53.4	10.81	54.8	10.91
	27	39.5	8.05	47.1	10.43	49.8	9.33	50.5	11.10	51.1	11.15	52.6	11.27	54.0	11.39
	29	39.5	8.59	47.1	11.15	49.0	11.47	49.7	11.54	50.5	11.61	51.9	11.73	53.4	11.85
	31	39.5	9.17	46.9	11.80	48.2	11.94	49.0	12.00	49.7	12.05	51.1	12.19	52.6	12.33
	33	39.5	9.77	46.1	12.24	47.6	12.36	48.2	12.45	49.0	12.51	50.5	12.65	51.7	12.80
	35	39.5	10.42	45.3	12.69	46.8	12.84	47.6	12.91	48.2	12.98	49.7	13.13	51.1	13.26
	37	39.5	11.08	44.7	13.15	46.1	13.30	46.8	13.37	47.6	13.45	48.9	13.61	50.3	13.76
	39	39.5	11.80	43.9	13.59	45.3	13.74	46.1	13.83	46.8	13.91	48.2	14.07	49.7	14.24
41	37.4	13.13	43.1	15.98	44.4	16.18	45.2	14.97	45.9	15.05	47.3	15.23	48.7	15.39	
44	34.8	14.27	40.8	17.38	42.3	17.97	43.3	16.91	44.0	16.22	45.5	16.02	47.0	16.18	
47	32.8	18.99	39.4	23.13	40.9	18.87	41.8	17.17	42.4	17.26	43.9	17.20	45.5	17.38	
50	30.0	18.65	35.3	22.71	36.5	19.90	37.2	19.88	37.8	18.94	39.2	18.64	40.9	18.31	
52	22.8	15.73	26.3	19.15	27.4	16.95	28.1	16.91	28.9	16.61	31.3	16.41	33.2	15.92	

GMV5 DC Inverter VRF Units Technical Sales Guide

120%	-5	36.5	4.98	45.1	6.45	53.7	6.85	55.6	6.89	56.9	6.92	58.2	7.00	59.7	7.07
	0	36.5	4.99	45.1	6.46	53.7	6.86	55.6	6.90	56.9	6.93	58.2	7.01	59.7	7.08
	4	36.5	5.01	45.1	6.48	53.7	6.89	55.6	6.92	56.9	6.96	58.2	7.03	59.7	7.11
	7	36.5	5.10	45.1	6.60	53.7	7.01	55.6	7.05	56.9	7.09	57.7	7.16	58.9	7.24
	10	36.5	5.32	43.4	6.50	50.5	7.72	54.0	8.35	56.6	8.71	57.9	8.37	59.1	8.05
	12	36.5	5.42	43.4	6.62	50.5	7.88	54.0	8.51	55.8	8.66	57.1	8.34	58.3	8.00
	14	36.5	5.52	43.4	6.75	50.5	8.03	54.0	8.68	55.0	8.61	56.4	8.29	57.7	8.34
	16	36.5	5.63	43.4	6.89	50.5	8.18	53.7	8.75	54.3	8.63	55.6	8.71	56.9	8.78
	18	36.5	5.73	43.4	7.02	50.5	8.47	52.9	9.04	53.5	9.07	54.8	9.16	56.2	9.24
	20	36.5	5.85	43.4	7.30	50.5	9.10	52.2	9.48	52.9	9.51	54.2	9.60	55.4	9.68
	21	36.5	5.90	43.4	7.55	50.5	9.43	51.7	9.70	52.4	9.74	53.8	9.82	55.1	9.92
	23	36.5	6.31	43.4	8.10	50.5	10.09	51.1	10.13	51.7	10.18	53.0	10.28	54.3	10.37
	25	36.5	6.73	43.4	8.66	49.7	10.54	50.3	10.57	50.9	10.62	52.4	10.72	53.7	10.83
	27	36.5	7.20	43.4	9.26	49.0	10.96	49.7	11.03	50.3	11.08	51.6	11.18	52.9	11.29
	29	36.5	7.67	43.4	9.89	48.2	11.41	48.9	11.47	49.5	11.53	50.8	11.65	52.2	11.75
	31	36.5	8.18	43.4	10.55	47.6	11.87	48.2	11.92	48.9	11.99	50.1	12.11	51.4	12.22
	33	36.5	8.71	43.4	11.27	46.8	12.31	47.4	12.38	48.1	12.43	49.3	12.57	50.6	12.69
	35	36.5	9.28	43.4	12.00	46.0	12.75	46.6	12.82	47.4	12.89	48.7	13.03	50.0	13.16
	37	36.5	9.87	43.4	12.79	45.3	13.21	46.0	13.28	46.6	13.35	47.9	13.49	49.2	13.64
	39	36.5	10.50	43.2	13.50	44.5	13.66	45.2	13.74	45.8	13.81	47.2	13.96	48.5	14.10
41	34.5	11.69	41.2	15.12	43.7	16.07	44.3	14.87	45.1	14.95	46.4	15.11	47.6	15.27	
44	32.1	12.71	39.1	16.44	41.6	17.85	42.4	16.80	43.3	16.11	44.6	15.89	46.0	16.06	
47	30.3	16.91	37.8	21.88	40.2	18.75	40.9	17.05	41.7	17.14	43.1	17.06	44.5	17.24	
50	27.7	16.60	33.8	21.49	35.9	19.77	36.5	19.75	37.2	18.82	38.5	18.50	40.0	18.16	
52	21.0	14.01	25.2	18.12	26.9	16.83	27.5	16.80	28.4	16.50	30.7	16.28	32.5	15.80	
110%	-5	33.4	4.40	41.4	5.67	53.0	6.80	54.6	6.84	55.7	6.88	56.8	6.94	58.4	7.00
	0	33.4	4.41	41.4	5.68	53.0	6.82	54.6	6.85	55.7	6.89	56.8	6.95	58.4	7.02
	4	33.4	4.43	41.4	5.70	53.0	6.84	54.6	6.88	55.7	6.91	56.8	6.98	58.4	7.04
	7	33.4	4.51	41.4	5.80	53.0	6.97	54.6	7.00	55.7	7.04	56.3	7.11	57.6	7.17
	10	33.4	4.83	39.9	5.88	46.3	6.99	49.5	7.55	52.7	8.13	56.7	8.63	58.0	8.34
	12	33.4	4.93	39.9	6.00	46.3	7.13	49.5	7.71	52.7	8.29	56.1	8.59	57.2	8.29
	14	33.4	5.01	39.9	6.10	46.3	7.26	49.5	7.84	52.7	8.44	55.3	8.59	56.6	8.27
	16	33.4	5.10	39.9	6.22	46.3	7.40	49.5	8.00	52.7	8.61	54.6	8.64	55.8	8.73
	18	33.4	5.20	39.9	6.34	46.3	7.55	49.5	8.22	52.7	9.02	53.8	9.09	55.1	9.17
	20	33.4	5.30	39.9	6.48	46.3	8.00	49.5	8.83	51.9	9.46	53.2	9.53	54.3	9.62
	21	33.4	5.35	39.9	6.67	46.3	8.29	49.5	9.16	51.6	9.68	52.7	9.75	54.0	9.84
	23	33.4	5.61	39.9	7.14	46.3	8.88	49.5	9.82	50.8	10.11	52.1	10.21	53.2	10.30
	25	33.4	5.97	39.9	7.64	46.3	9.50	49.5	10.52	50.1	10.55	51.3	10.66	52.6	10.74
	27	33.4	6.38	39.9	8.17	46.3	10.16	48.7	10.96	49.3	11.00	50.6	11.10	51.7	11.20
	29	33.4	6.80	39.9	8.71	46.3	10.86	48.1	11.41	48.7	11.46	49.8	11.56	51.1	11.66
	31	33.4	7.25	39.9	9.29	46.3	11.59	47.2	11.85	47.9	11.90	49.2	12.00	50.3	12.12
	33	33.4	7.71	39.9	9.91	46.0	12.22	46.6	12.29	47.2	12.34	48.4	12.46	49.7	12.58
	35	33.4	8.20	39.9	10.55	45.3	12.67	45.8	12.74	46.4	12.80	47.6	12.92	48.9	13.04
	37	33.4	8.73	39.9	11.24	44.5	13.13	45.2	13.18	45.6	13.25	46.9	13.38	48.1	13.50
	39	33.4	9.28	39.9	11.97	43.7	13.57	44.4	13.64	45.0	13.71	46.1	13.84	47.4	13.98
41	31.6	10.33	37.9	13.30	43.1	15.96	43.5	14.77	44.2	14.85	45.3	14.99	46.6	15.13	
44	29.4	11.24	35.9	14.46	41.0	17.74	41.7	16.68	42.4	16.01	43.6	15.77	44.9	15.91	
47	27.7	14.95	34.7	19.24	39.7	18.62	40.2	16.94	40.9	17.03	42.1	16.93	43.5	17.09	
50	25.4	14.68	31.1	18.89	35.4	19.64	35.9	19.61	36.5	18.69	37.6	18.35	39.1	18.00	
52	19.3	12.38	23.1	15.94	26.5	16.72	27.0	16.68	27.9	16.39	30.0	16.15	31.8	15.65	

100%	-5	30.4	3.85	37.6	4.93	49.2	6.15	53.7	6.79	54.6	6.83	55.6	6.89	57.0	6.95
	0	30.4	3.86	37.6	4.94	49.2	6.16	53.7	6.81	54.6	6.84	55.6	6.90	57.0	6.96
	4	30.4	3.87	37.6	4.96	49.2	6.18	53.7	6.83	54.6	6.87	55.6	6.93	57.0	6.99
	7	30.4	3.94	37.6	5.05	49.2	6.30	53.7	6.96	54.6	6.99	55.2	7.06	56.2	7.12
	10	30.4	4.37	36.2	5.30	42.1	6.27	45.0	6.77	47.9	7.31	53.8	8.28	56.9	8.60
	12	30.4	4.42	36.2	5.37	42.1	6.35	45.0	6.86	47.9	7.45	53.8	8.42	56.1	8.53
	14	30.4	4.50	36.2	5.47	42.1	6.46	45.0	6.99	47.9	7.59	53.8	8.57	55.4	8.47
	16	30.4	4.60	36.2	5.59	42.1	6.61	45.0	7.14	47.9	7.76	53.6	8.76	54.6	8.66
	18	30.4	4.70	36.2	5.71	42.1	6.74	45.0	7.28	47.9	7.91	52.9	8.93	54.0	9.06
	20	30.4	4.78	36.2	5.80	42.1	6.96	45.0	7.67	47.9	8.42	52.1	9.40	53.2	9.54
	21	30.4	4.82	36.2	5.86	42.1	7.20	45.0	7.93	47.9	8.70	51.7	9.72	52.9	9.81
	23	30.4	4.95	36.2	6.26	42.1	7.74	45.0	8.52	47.9	9.36	51.1	10.28	52.1	10.38
	25	30.4	5.26	36.2	6.66	42.1	8.23	45.0	9.07	47.9	10.01	50.3	10.66	51.4	10.75
	27	30.4	5.62	36.2	7.12	42.1	8.83	45.0	9.73	47.9	10.74	49.5	11.03	50.6	11.13
	29	30.4	5.96	36.2	7.60	42.1	9.45	45.0	10.41	47.7	11.38	48.8	11.56	49.9	11.67
	31	30.4	6.34	36.2	8.10	42.1	10.07	45.0	11.21	47.1	11.84	47.7	12.03	49.2	12.14
	33	30.4	6.74	36.2	8.62	42.1	10.74	45.0	11.87	46.3	12.27	47.5	12.38	48.5	12.49
	35	30.4	7.17	36.2	9.18	42.1	11.45	45.0	12.65	45.5	12.71	46.6	12.83	47.7	12.94
	37	30.4	7.64	36.2	9.78	42.1	12.19	44.2	13.11	44.9	13.17	45.9	13.26	47.0	13.38
	39	30.4	8.13	36.2	10.41	42.1	12.99	43.6	13.54	43.8	13.61	45.3	13.70	45.9	13.83
41	28.7	9.04	34.4	11.57	40.0	14.43	42.8	14.68	43.3	14.75	44.3	14.88	45.5	15.02	
44	26.7	9.82	32.5	12.58	38.1	16.03	40.9	16.57	41.5	15.89	42.7	15.65	43.9	15.79	
47	25.2	13.07	31.5	16.74	36.8	16.83	39.5	16.83	40.0	16.91	41.2	16.81	42.5	16.96	
50	23.1	12.84	28.2	16.44	32.9	17.75	35.2	19.48	35.7	18.56	36.8	18.22	38.2	17.86	
52	17.5	10.83	21.0	13.87	24.6	15.11	26.5	16.57	27.3	16.27	29.3	16.04	31.0	15.53	
90%	-5	27.3	3.36	33.8	4.25	44.3	5.25	48.3	5.80	51.7	6.38	54.5	6.83	55.7	6.89
	0	27.3	3.37	33.8	4.26	44.3	5.26	48.3	5.81	51.7	6.39	54.5	6.84	55.7	6.90
	4	27.3	3.38	33.8	4.28	44.3	5.28	48.3	5.83	51.7	6.42	54.5	6.87	55.7	6.93
	7	27.3	3.44	33.8	4.36	44.3	5.38	48.3	5.94	51.7	6.54	54.1	6.99	55.0	7.06
	10	27.3	3.81	32.5	4.57	37.9	5.36	40.5	6.03	43.1	6.42	48.4	7.36	53.7	8.34
	12	27.3	3.86	32.5	4.63	37.9	5.43	40.5	6.11	43.1	6.55	48.4	7.49	53.7	8.45
	14	27.3	3.93	32.5	4.71	37.9	5.52	40.5	6.21	43.1	6.66	48.4	7.62	53.7	8.59
	16	27.3	4.01	32.5	4.82	37.9	5.64	40.5	6.35	43.1	6.81	48.4	7.79	53.5	8.75
	18	27.3	4.10	32.5	4.93	37.9	5.75	40.5	6.47	43.1	6.94	48.4	7.97	53.0	9.07
	20	27.3	4.17	32.5	5.00	37.9	5.94	40.5	6.60	43.1	7.23	48.4	8.56	52.1	9.45
	21	27.3	4.21	32.5	5.05	37.9	6.15	40.5	6.82	43.1	7.48	48.4	8.86	51.7	9.66
	23	27.3	4.32	32.5	5.40	37.9	6.61	40.5	7.34	43.1	8.01	48.4	9.51	50.9	10.16
	25	27.3	4.59	32.5	5.74	37.9	7.03	40.5	7.83	43.1	8.57	48.4	10.17	50.3	10.57
	27	27.3	4.91	32.5	6.14	37.9	7.54	40.5	8.35	43.1	9.17	48.4	10.86	49.5	11.03
	29	27.3	5.20	32.5	6.56	37.9	8.07	40.5	8.93	43.1	9.79	47.9	11.38	48.9	11.48
	31	27.3	5.53	32.5	6.98	37.9	8.60	40.5	9.53	43.1	10.45	47.1	11.79	48.1	11.95
	33	27.3	5.88	32.5	7.44	37.9	9.17	40.5	10.13	43.1	11.11	46.4	12.27	47.4	12.38
	35	27.3	6.26	32.5	7.92	37.9	9.78	40.5	10.80	43.1	11.88	45.6	12.72	46.6	12.83
	37	27.3	6.66	32.5	8.43	37.9	10.41	39.8	11.19	43.1	12.72	44.8	13.17	46.0	13.14
	39	27.3	7.10	32.5	8.98	37.9	11.09	39.2	11.56	43.1	13.48	44.2	13.66	45.2	13.62
41	25.8	7.88	30.9	9.98	36.0	12.32	38.5	12.53	41.0	13.79	43.5	14.75	44.4	14.88	
44	24.1	8.57	29.3	10.85	34.3	13.69	36.9	14.15	39.3	14.86	41.8	15.51	42.9	15.65	
47	22.7	11.41	28.3	14.44	33.2	14.37	35.6	14.37	37.9	15.81	40.4	16.66	41.5	16.81	
50	20.8	11.20	25.4	14.18	29.6	15.16	31.7	16.64	33.8	17.35	36.1	18.06	37.3	17.71	
52	15.7	9.45	18.9	11.96	22.2	12.91	23.9	14.15	25.9	15.21	28.8	15.90	30.3	15.40	

GMV5 DC Inverter VRF Units Technical Sales Guide

80%	-5	24.3	2.90	30.1	3.58	39.4	4.45	42.9	4.90	45.8	5.35	51.4	6.35	54.3	6.81
	0	24.3	2.91	30.1	3.59	39.4	4.46	42.9	4.91	45.8	5.36	51.4	6.37	54.3	6.82
	4	24.3	2.92	30.1	3.60	39.4	4.47	42.9	4.93	45.8	5.38	51.4	6.39	54.3	6.85
	7	24.3	2.97	30.1	3.67	39.4	4.56	42.9	5.02	45.8	5.48	51.0	6.51	53.6	6.97
	10	24.3	3.46	28.9	4.14	33.7	4.88	36.0	5.25	38.3	5.62	43.1	6.42	47.7	7.46
	12	24.3	3.51	28.9	4.21	33.7	4.96	36.0	5.35	38.3	5.73	43.1	6.54	47.7	7.40
	14	24.3	3.58	28.9	4.30	33.7	5.05	36.0	5.44	38.3	5.84	43.1	6.65	47.7	7.57
	16	24.3	3.63	28.9	4.36	33.7	5.15	36.0	5.54	38.3	5.93	43.1	6.80	47.7	7.84
	18	24.3	3.70	28.9	4.45	33.7	5.27	36.0	5.66	38.3	6.04	43.1	6.95	47.7	8.39
	20	24.3	3.77	28.9	4.54	33.7	5.35	36.0	5.76	38.3	6.18	43.1	7.20	47.7	8.69
	21	24.3	3.80	28.9	4.57	33.7	5.40	36.0	5.83	38.3	6.32	43.1	7.46	47.7	9.30
	23	24.3	3.87	28.9	4.67	33.7	5.66	36.0	6.21	38.3	6.75	43.1	7.98	47.7	9.95
	25	24.3	3.99	28.9	4.96	33.7	6.05	36.0	6.63	38.3	7.21	43.1	8.55	47.7	10.62
	27	24.3	4.25	28.9	5.29	33.7	6.44	36.0	7.08	38.3	7.73	43.1	9.12	47.7	10.99
	29	24.3	4.52	28.9	5.63	33.7	6.87	36.0	7.54	38.2	8.25	43.1	9.74	47.7	11.39
	31	24.3	4.79	28.9	5.98	33.7	7.31	36.0	8.03	38.2	8.79	43.1	10.39	46.9	11.81
	33	24.3	5.10	28.9	6.67	33.7	7.79	36.0	8.56	38.2	9.36	43.1	11.09	46.3	12.24
	35	24.3	5.40	28.9	6.67	33.7	8.29	36.0	9.12	38.2	9.97	43.1	11.83	45.5	12.68
	37	24.3	5.73	28.9	7.18	33.7	8.81	35.4	9.71	38.2	10.62	43.1	12.60	44.8	13.15
	39	24.3	6.07	28.9	7.62	33.7	9.38	34.9	10.35	38.2	11.31	43.1	13.42	44.0	13.63
41	23.0	6.81	27.5	8.40	32.0	10.44	34.2	10.58	36.3	11.56	41.0	13.73	43.3	14.71	
44	21.4	7.40	26.0	9.13	30.5	11.60	32.8	11.95	34.9	12.46	39.4	14.44	41.8	15.47	
47	20.2	9.85	25.2	12.15	29.5	12.18	31.6	12.13	33.6	13.26	38.1	15.50	40.5	16.61	
50	18.5	9.67	22.6	11.93	26.3	12.84	28.2	14.05	30.0	14.56	34.0	16.80	36.4	17.50	
52	14.0	8.16	16.8	10.07	19.7	10.94	21.2	11.95	22.9	12.76	27.1	14.79	29.6	15.21	
70%	-5	21.3	2.47	26.3	3.06	34.4	3.71	37.6	4.07	40.2	4.43	45.0	5.22	49.9	6.07
	0	21.3	2.48	26.3	3.06	34.4	3.72	37.6	4.07	40.2	4.44	45.0	5.23	49.9	6.08
	4	21.3	2.49	26.3	3.08	34.4	3.73	37.6	4.09	40.2	4.46	45.0	5.25	49.9	6.10
	7	21.3	2.53	26.3	3.13	34.4	3.80	37.6	4.16	40.2	4.54	44.6	5.35	49.3	6.22
	10	21.3	3.05	25.3	3.61	29.5	4.21	31.5	4.54	33.5	4.86	37.7	5.52	41.8	6.21
	12	21.3	3.09	25.3	3.67	29.5	4.30	31.5	4.62	33.5	4.94	37.7	5.63	41.8	6.33
	14	21.3	3.14	25.3	3.73	29.5	4.36	31.5	4.69	33.5	5.03	37.7	5.73	41.8	6.44
	16	21.3	3.19	25.3	3.80	29.5	4.45	31.5	4.79	33.5	5.13	37.7	5.83	41.8	6.56
	18	21.3	3.24	25.3	3.87	29.5	4.54	31.5	4.88	33.5	5.22	37.7	5.95	41.8	6.70
	20	21.3	3.29	25.3	3.94	29.5	4.62	31.5	4.96	33.5	5.32	37.7	6.07	41.8	6.89
	21	21.3	3.32	25.3	3.97	29.5	4.65	31.5	5.01	33.5	5.37	37.7	6.14	41.8	7.13
	23	21.3	3.38	25.3	4.04	29.5	4.76	31.5	5.18	33.5	5.64	37.7	6.60	41.8	7.64
	25	21.3	3.44	25.3	4.21	29.5	5.06	31.5	5.54	33.5	6.02	37.7	7.06	41.8	8.17
	27	21.3	3.65	25.3	4.48	29.5	5.40	31.5	5.90	33.5	6.43	37.7	7.54	41.8	8.73
	29	21.3	3.87	25.3	4.76	29.5	5.75	31.5	6.29	33.5	6.84	37.7	8.03	41.8	9.33
	31	21.3	4.09	25.3	5.05	29.5	6.12	31.5	6.68	33.5	7.28	37.7	8.56	41.8	9.94
	33	21.3	4.35	25.3	5.37	29.5	6.51	31.5	7.11	33.5	7.76	37.7	9.12	41.8	10.61
	35	21.3	4.60	25.3	5.69	29.5	6.91	31.5	7.57	33.5	8.25	37.7	9.72	41.8	11.30
	37	21.3	4.86	25.3	6.04	29.5	7.35	30.9	8.05	33.5	8.78	37.7	10.35	41.8	12.04
	39	21.3	5.15	25.3	6.39	29.5	7.79	30.5	8.54	33.5	9.33	37.7	11.00	41.8	12.82
41	20.1	5.80	24.0	7.18	28.0	8.70	29.9	8.78	31.9	9.57	35.9	11.27	39.8	13.11	
44	18.7	6.31	22.8	7.80	26.7	9.67	28.7	9.92	30.6	10.32	34.5	11.86	38.4	13.79	
47	17.6	8.39	22.0	10.38	25.8	10.15	27.7	10.07	29.5	10.98	33.3	12.73	37.2	14.81	
50	16.2	8.24	19.7	10.19	23.0	10.70	24.7	11.66	26.3	12.05	29.8	13.80	33.4	15.60	
52	12.2	6.95	14.7	8.60	17.2	9.11	18.6	9.92	20.1	10.56	23.7	12.15	27.2	13.56	

60%	-5	18.2	2.08	22.5	2.54	29.5	3.04	32.2	3.31	34.5	3.60	38.6	4.20	42.8	4.85
	0	18.2	2.08	22.5	2.54	29.5	3.05	32.2	3.32	34.5	3.60	38.6	4.21	42.8	4.86
	4	18.2	2.09	22.5	2.55	29.5	3.06	32.2	3.33	34.5	3.62	38.6	4.23	42.8	4.88
	7	18.2	2.13	22.5	2.60	29.5	3.11	32.2	3.39	34.5	3.69	38.2	4.30	42.3	4.97
	10	18.2	2.64	21.7	3.10	25.3	3.60	27.0	3.85	28.7	4.11	32.3	4.65	35.8	5.22
	12	18.2	2.69	21.7	3.15	25.3	3.67	27.0	3.92	28.7	4.18	32.3	4.74	35.8	5.30
	14	18.2	2.73	21.7	3.21	25.3	3.72	27.0	3.99	28.7	4.26	32.3	4.83	35.8	5.40
	16	18.2	2.76	21.7	3.26	25.3	3.79	27.0	4.06	28.7	4.33	32.3	4.91	35.8	5.51
	18	18.2	2.81	21.7	3.31	25.3	3.85	27.0	4.13	28.7	4.42	32.3	5.00	35.8	5.61
	20	18.2	2.85	21.7	3.38	25.3	3.92	27.0	4.21	28.7	4.50	32.3	5.10	35.8	5.73
	21	18.2	2.88	21.7	3.39	25.3	3.96	27.0	4.25	28.7	4.54	32.3	5.15	35.8	5.78
	23	18.2	2.92	21.7	3.46	25.3	4.02	27.0	4.33	28.7	4.62	32.3	5.35	35.8	6.16
	25	18.2	2.97	21.7	3.53	25.3	4.18	27.0	4.54	28.7	4.91	32.3	5.71	35.8	6.56
	27	18.2	3.09	21.7	3.73	25.3	4.45	27.0	4.84	28.7	5.23	32.3	6.09	35.8	7.01
	29	18.2	3.26	21.7	3.96	25.3	4.74	27.0	5.15	28.7	5.58	32.3	6.50	35.8	7.48
	31	18.2	3.46	21.7	4.21	25.3	5.03	27.0	5.47	28.7	5.93	32.3	6.91	35.8	7.96
	33	18.2	3.65	21.7	4.45	25.3	5.34	27.0	5.81	28.7	6.31	32.3	7.35	35.8	8.49
	35	18.2	3.87	21.7	4.72	25.3	5.66	27.0	6.17	28.7	6.70	32.3	7.83	35.8	9.04
	37	18.2	4.09	21.7	5.00	25.3	6.00	26.5	6.55	28.7	7.11	32.3	8.32	35.8	9.62
	39	18.2	4.31	21.7	5.29	25.3	6.36	26.2	6.94	28.7	7.55	32.3	8.83	35.8	10.23
41	17.2	4.88	20.6	5.95	24.0	7.13	25.7	7.16	27.3	7.77	30.7	9.08	34.2	10.48	
44	16.0	5.30	19.5	6.47	22.9	7.92	24.6	8.09	26.2	8.38	29.6	9.55	33.0	11.02	
47	15.1	7.06	18.9	8.61	22.1	8.32	23.7	8.21	25.3	8.91	28.6	10.25	31.9	11.84	
50	13.9	6.93	16.9	8.45	19.7	8.77	21.1	9.51	22.6	9.78	25.5	11.11	28.7	12.47	
52	10.5	5.84	12.6	7.13	14.8	7.47	15.9	8.09	17.2	8.58	20.3	9.78	23.3	10.84	
50%	-5	15.2	1.72	18.8	2.06	24.6	2.44	26.8	2.64	28.6	2.85	32.1	3.30	35.7	3.77
	0	15.2	1.72	18.8	2.06	24.6	2.44	26.8	2.64	28.6	2.85	32.1	3.30	35.7	3.78
	4	15.2	1.73	18.8	2.07	24.6	2.45	26.8	2.65	28.6	2.86	32.1	3.31	35.7	3.79
	7	15.2	1.76	18.8	2.11	24.6	2.49	26.8	2.70	28.6	2.92	31.9	3.38	35.2	3.86
	10	15.2	2.28	18.1	2.64	21.1	3.02	22.5	3.22	23.9	3.41	26.9	3.84	29.9	4.28
	12	15.2	2.30	18.1	2.68	21.1	3.07	22.5	3.26	23.9	3.48	26.9	3.90	29.9	4.35
	14	15.2	2.34	18.1	2.71	21.1	3.10	22.5	3.32	23.9	3.53	26.9	3.97	29.9	4.43
	16	15.2	2.37	18.1	2.75	21.1	3.15	22.5	3.38	23.9	3.58	26.9	4.04	29.9	4.50
	18	15.2	2.40	18.1	2.80	21.1	3.21	22.5	3.43	23.9	3.65	26.9	4.11	29.9	4.59
	20	15.2	2.44	18.1	2.83	21.1	3.26	22.5	3.50	23.9	3.72	26.9	4.19	29.9	4.67
	21	15.2	2.46	18.1	2.86	21.1	3.29	22.5	3.51	23.9	3.75	26.9	4.23	29.9	4.72
	23	15.2	2.49	18.1	2.90	21.1	3.34	22.5	3.58	23.9	3.82	26.9	4.30	29.9	4.83
	25	15.2	2.52	18.1	2.95	21.1	3.41	22.5	3.65	23.9	3.94	26.9	4.52	29.9	5.15
	27	15.2	2.57	18.1	3.07	21.1	3.60	22.5	3.89	23.9	4.18	26.9	4.81	29.9	5.49
	29	15.2	2.71	18.1	3.24	21.1	3.82	22.5	4.13	23.9	4.45	26.9	5.12	29.9	5.85
	31	15.2	2.86	18.1	3.43	21.1	4.07	22.5	4.38	23.9	4.72	26.9	5.44	29.9	6.22
	33	15.2	3.03	18.1	3.63	21.1	4.30	22.5	4.64	23.9	5.01	26.9	5.78	29.9	6.62
	35	15.2	3.21	18.1	3.84	21.1	4.54	22.5	4.91	23.9	5.30	26.9	6.14	29.9	7.02
	37	15.2	3.38	18.1	4.06	21.1	4.81	22.1	5.20	23.9	5.63	26.9	6.51	29.9	7.47
	39	15.2	3.56	18.1	4.28	21.1	5.08	21.8	5.51	23.9	5.97	26.9	6.91	29.9	7.93
41	14.4	4.04	17.2	4.83	20.0	5.71	21.4	5.70	22.7	6.15	25.6	7.12	28.5	8.15	
44	13.4	4.39	16.3	5.26	19.1	6.35	20.5	6.43	21.8	6.63	24.6	7.49	27.5	8.57	
47	12.6	5.84	15.7	6.99	18.4	6.67	19.8	6.53	21.0	7.05	23.8	8.04	26.6	9.20	
50	11.5	5.74	14.1	6.87	16.4	7.03	17.6	7.56	18.7	7.74	21.3	8.72	23.9	9.69	
52	8.7	4.84	10.5	5.79	12.3	5.99	13.3	6.43	14.3	6.79	17.0	7.67	19.4	8.43	

GMV5 DC Inverter VRF Units Technical Sales Guide

► Heating Capacity Calculation Method

GMV-224WM/B-X

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

Combination	Outdoor air temp.		Indoor air temperature. °CDB											
			16		18		20		21		22		24	
	°CDB	°CWB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130	-19.8	-20.0	16.2	3.88	16.1	4.16	16.0	4.43	16.0	4.57	16.0	4.71	16.0	4.98
	-18.8	-19.0	16.4	3.97	16.4	4.24	16.4	4.51	16.3	4.65	16.3	4.78	16.2	5.05
	-16.7	-17.0	17.1	4.16	17.0	4.41	16.9	4.68	16.9	4.78	16.9	4.93	16.8	5.20
	-13.7	-15.0	17.8	4.35	17.7	4.60	17.6	4.85	17.6	4.97	17.5	5.10	17.5	5.35
	-11.8	-13.0	18.5	4.54	18.5	4.78	18.4	5.02	18.3	5.14	18.3	5.26	18.3	5.50
	-9.8	-11.0	19.4	4.74	19.3	4.97	19.2	5.20	19.2	5.31	19.2	5.43	19.1	5.65
	-9.5	-10.0	19.8	4.84	19.8	5.06	19.7	5.28	19.7	5.40	19.6	5.50	19.6	5.73
	-8.5	-9.1	20.2	4.93	20.2	5.14	20.2	5.36	20.1	5.47	20.1	5.58	20.0	5.80
	-7.0	-7.6	21.0	5.07	21.0	5.28	20.9	5.49	20.9	5.60	20.8	5.70	20.7	5.91
	-5.0	-5.6	22.1	5.26	22.0	5.36	21.9	5.66	21.9	5.76	21.8	5.85	21.8	6.05
	-3.0	-3.7	23.1	5.43	23.0	5.63	23.0	5.81	22.9	5.91	22.9	6.00	22.9	6.19
	0.0	-0.7	24.9	5.70	24.9	5.88	24.8	6.05	24.8	6.13	24.8	6.23	24.8	6.40
	3.0	2.2	26.9	5.93	26.8	6.10	26.7	6.26	26.7	6.34	26.7	6.43	26.7	6.58
	5.0	4.1	28.3	6.08	28.2	6.24	28.2	6.39	28.1	6.47	28.1	6.55	28.0	6.70
	7.0	6.0	29.7	6.23	29.6	6.37	29.6	6.52	29.5	6.58	29.5	6.66	28.3	6.40
	9.0	7.9	31.2	6.35	31.1	6.50	31.1	6.63	31.0	6.70	30.4	6.57	28.3	6.01
11.0	9.8	32.8	6.48	32.7	6.61	32.5	6.70	31.4	6.43	30.4	6.17	28.3	5.66	
13.0	11.8	34.5	6.60	34.4	6.73	32.5	6.28	31.4	6.03	30.4	5.79	28.3	5.31	
15.0	13.7	36.2	6.72	34.6	6.38	32.5	5.91	31.4	5.68	30.4	5.45	28.3	5.01	
120	-19.8	-20.0	16.1	4.26	16.0	4.51	16.0	4.76	16.0	4.88	16.0	5.01	15.9	5.27
	-18.8	-19.0	16.4	4.33	16.3	4.58	16.3	4.78	16.2	4.96	16.2	5.08	16.1	5.33
	-16.7	-17.0	17.0	4.51	16.9	4.75	16.9	4.98	16.8	5.11	16.8	5.23	16.7	5.46
	-13.7	-15.0	17.7	4.68	17.6	4.91	17.5	5.14	17.5	5.26	17.5	5.38	17.5	5.60
	-11.8	-13.0	18.4	4.86	18.4	5.08	18.3	5.31	18.3	5.42	18.3	5.53	18.3	5.75
	-9.8	-11.0	19.3	5.05	19.2	5.26	19.2	5.47	19.1	5.58	19.1	5.68	19.0	5.90
	-9.5	-10.0	19.8	5.14	19.7	5.35	19.6	5.55	19.6	5.65	19.6	5.71	19.5	5.96
	-8.5	-9.1	20.2	5.22	20.1	5.42	20.1	5.62	20.0	5.72	20.0	5.83	19.9	6.03
	-7.0	-7.6	20.9	5.36	20.9	5.55	20.8	5.74	20.8	5.84	20.7	5.93	20.7	6.13
	-5.0	-5.6	22.0	5.53	21.9	5.71	21.8	5.90	21.8	5.99	21.8	6.08	21.7	6.26
	-3.0	-3.7	23.0	5.69	23.0	5.87	22.9	6.04	22.9	6.13	22.9	6.22	22.9	6.39
	0.0	-0.7	24.8	5.93	24.8	6.10	24.8	6.33	24.8	6.34	24.7	6.42	24.7	6.58
	3.0	2.2	26.8	6.15	26.7	6.30	26.7	6.45	26.7	6.53	26.7	6.60	26.1	6.57
	5.0	4.1	28.2	6.29	28.1	6.43	28.1	6.58	28.0	6.65	28.0	6.72	26.1	6.17
	7.0	6.0	29.6	6.42	29.6	6.55	29.5	6.69	29.0	6.60	28.1	6.33	26.1	5.80
	9.0	7.9	31.1	6.55	31.0	6.68	30.0	6.45	29.0	6.20	28.1	5.95	26.1	5.46
11.0	9.8	32.7	6.66	31.9	6.55	30.0	6.07	29.0	5.83	28.1	5.60	26.1	5.15	
13.0	11.8	33.9	6.60	31.9	6.14	30.0	5.69	29.0	5.48	28.1	5.26	26.1	4.84	
15.0	13.7	33.9	6.21	31.9	5.78	30.0	5.37	29.0	5.16	28.1	4.96	26.1	4.57	

110	-19.8	-20.0	16.0	4.63	16.0	4.86	15.9	5.09	15.9	5.21	15.9	5.32	15.8	5.55
	-18.8	-19.0	16.3	4.70	16.3	4.93	174.9	5.16	16.2	5.27	16.1	5.38	16.1	5.61
	-16.7	-17.0	16.9	4.86	16.8	5.08	16.8	5.30	16.7	5.40	16.7	5.52	16.7	5.73
	-13.7	-15.0	17.6	5.02	17.5	5.23	17.5	5.44	17.5	5.55	17.5	5.65	17.4	5.86
	-11.8	-13.0	18.3	5.19	18.3	5.39	18.3	5.59	18.3	5.69	18.2	5.79	18.2	6.00
	-9.8	-11.0	19.2	5.36	19.1	5.55	19.1	5.74	19.0	5.84	19.0	5.93	19.0	6.13
	-9.5	-10.0	19.7	5.44	19.6	5.63	19.5	5.82	19.5	5.91	19.5	6.00	19.4	6.19
	-8.5	-9.1	20.1	5.51	20.0	5.70	20.0	5.88	20.0	5.98	19.9	6.07	19.9	6.25
	-7.0	-7.6	20.8	5.64	20.8	5.81	20.7	5.99	20.7	6.08	21.0	6.17	20.6	6.35
	-5.0	-5.6	21.9	5.80	21.8	5.97	21.7	6.13	21.7	6.22	22.8	6.30	21.7	6.48
	-3.0	-3.7	22.9	5.95	22.9	6.10	22.9	6.27	22.9	6.35	24.7	6.43	22.8	6.59
	0.0	-0.7	24.8	6.17	24.8	6.32	24.7	6.47	24.7	6.54	25.7	6.62	24.0	6.49
	3.0	2.2	26.7	6.38	26.7	6.51	26.7	6.65	26.6	6.71	25.7	6.44	24.0	5.90
	5.0	4.1	28.1	6.50	28.1	6.63	27.5	6.57	26.6	6.30	25.7	6.05	24.0	5.55
	7.0	6.0	29.5	6.62	29.3	6.66	27.5	6.17	26.6	5.93	25.7	5.69	24.0	5.23
	9.0	7.9	31.0	6.73	29.3	6.26	27.5	5.80	26.6	5.58	25.7	5.36	24.0	4.93
11.0	9.8	31.0	6.33	29.3	5.89	27.5	5.46	26.6	5.26	25.7	5.05	24.0	4.65	
13.0	11.8	31.0	5.93	29.3	5.53	27.5	5.13	26.6	4.94	25.7	4.75	24.0	4.38	
15.0	13.7	31.0	5.59	29.3	5.21	27.5	4.85	26.6	4.66	25.7	4.49	24.0	4.14	
100	-19.8	-20.0	16.0	5.00	15.9	5.21	15.9	5.42	15.8	5.53	15.8	5.63	15.7	5.84
	-18.8	-19.0	16.2	5.06	16.2	5.27	16.1	5.48	16.1	5.58	16.0	5.69	16.0	5.90
	-16.7	-17.0	16.8	5.21	16.7	5.40	16.7	5.60	16.7	5.70	16.7	5.80	16.7	6.00
	-13.7	-15.0	17.5	5.36	17.5	5.55	17.5	5.74	17.4	5.84	17.4	5.93	17.3	6.13
	-11.8	-13.0	18.3	5.51	18.3	5.69	18.2	5.88	18.2	5.97	18.2	5.85	18.1	6.25
	-9.8	-11.0	19.1	5.66	19.0	5.84	19.0	6.01	19.0	6.10	19.0	6.19	19.0	6.36
	-9.5	-10.0	19.6	5.74	19.5	5.91	19.5	6.08	19.4	6.17	19.4	6.25	19.4	6.43
	-8.5	-9.1	20.0	5.80	20.0	5.98	19.9	6.14	19.9	6.23	19.8	6.31	19.8	6.48
	-7.0	-7.6	20.7	5.92	20.7	6.08	20.6	6.24	20.6	6.33	20.6	6.40	20.6	6.57
	-5.0	-5.6	21.8	6.07	21.7	6.22	21.7	6.38	21.7	6.45	21.7	6.53	21.7	6.68
	-3.0	-3.7	22.9	6.20	22.9	6.35	22.8	6.50	22.8	6.57	22.8	6.64	21.8	6.36
	0.0	-0.7	24.7	6.41	24.7	6.54	24.6	6.68	24.2	6.57	23.4	6.30	21.8	5.78
	3.0	2.2	26.7	6.59	26.6	6.71	25.0	6.21	24.2	5.97	23.4	5.73	21.8	5.26
	5.0	4.1	28.0	6.71	26.6	6.30	25.0	5.84	24.2	5.62	23.4	5.40	21.8	4.96
	7.0	6.0	28.2	6.37	26.6	5.93	25.0	5.50	24.2	5.29	23.4	5.08	21.8	4.68
	9.0	7.9	28.2	5.98	26.6	5.58	25.0	5.18	24.2	4.98	23.4	4.79	21.8	4.41
11.0	9.8	28.2	5.63	26.6	5.26	25.0	4.88	24.2	4.70	23.4	4.52	21.8	4.17	
13.0	11.8	28.2	5.29	26.6	4.94	25.0	4.60	24.2	4.43	23.4	4.26	21.8	3.93	
15.0	13.7	28.2	4.99	26.6	4.66	25.0	4.34	24.2	4.18	23.4	4.03	21.8	3.73	
90	-19.8	-20.0	15.9	5.37	15.8	5.55	15.8	5.75	15.7	5.84	15.7	5.94	15.7	6.13
	-18.8	-19.0	16.1	5.43	16.1	5.62	16.0	5.80	16.0	5.90	16.0	5.99	16.0	6.18
	-16.7	-17.0	16.7	5.56	16.7	5.74	16.7	5.92	16.7	6.01	16.6	6.10	16.6	6.28
	-13.7	-15.0	17.5	5.70	17.4	5.87	17.4	6.04	17.3	6.07	17.3	6.21	17.3	6.38
	-11.8	-13.0	18.2	5.83	18.2	6.00	18.1	6.16	18.1	6.25	18.1	6.33	18.0	6.49
	-9.8	-11.0	19.0	5.97	19.0	6.13	19.0	6.28	19.0	6.37	19.0	6.45	18.9	6.60
	-9.5	-10.0	19.5	6.04	19.4	6.20	19.4	6.35	19.4	6.43	19.4	6.50	19.4	6.65
	-8.5	-9.1	19.9	6.10	19.9	6.25	19.8	6.40	19.8	6.48	19.8	6.55	19.6	6.62
	-7.0	-7.6	20.6	6.20	20.6	6.35	20.6	6.50	20.6	6.57	20.6	6.64	19.6	6.32
	-5.0	-5.6	21.7	6.34	21.7	6.48	21.7	6.61	21.7	6.68	21.0	6.48	19.6	5.94
	-3.0	-3.7	22.8	6.46	22.8	6.58	22.5	6.62	21.7	6.35	21.0	6.10	19.6	5.60
	0.0	-0.7	24.7	6.65	24.0	5.77	22.5	6.00	21.7	5.77	21.0	5.54	19.6	5.09
	3.0	2.2	25.4	6.33	24.0	5.90	22.5	5.47	21.7	5.26	21.0	5.06	19.6	4.66
	5.0	4.1	25.4	5.95	24.0	5.55	22.5	5.16	21.7	4.96	21.0	4.77	19.6	4.39
	7.0	6.0	25.4	5.60	24.0	5.23	22.5	4.86	21.7	4.68	21.0	4.50	19.6	4.15
	9.0	7.9	25.4	5.28	24.0	4.92	22.5	4.58	21.7	4.41	21.0	4.25	19.6	3.92
11.0	9.8	25.4	4.97	24.0	4.64	22.5	4.33	21.7	4.17	21.0	4.01	19.6	3.71	
13.0	11.8	25.4	4.68	24.0	4.38	22.5	4.08	21.7	3.93	21.0	3.79	19.6	3.51	
15.0	13.7	25.4	4.42	24.0	4.13	22.5	3.86	21.7	3.71	21.0	3.59	19.6	3.33	

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80	-19.8	-20.0	15.8	5.74	15.7	5.90	15.7	6.08	15.7	6.16	15.6	6.25	15.6	6.41
	-18.8	-19.0	16.0	5.79	16.0	5.96	16.0	6.13	16.0	6.21	16.0	6.29	15.9	6.46
	-16.7	-17.0	16.7	5.91	16.6	6.07	16.6	6.23	16.6	6.31	16.6	6.39	16.5	6.55
	-13.7	-15.0	17.4	6.03	17.3	6.18	17.3	6.34	17.3	6.41	17.2	6.49	17.2	6.65
	-11.8	-13.0	18.1	6.15	18.1	6.30	18.0	6.45	18.0	6.52	18.0	6.60	17.5	6.42
	-9.8	-11.0	19.0	6.28	19.0	6.42	18.9	6.56	18.9	6.63	18.7	6.61	17.5	6.06
	-9.5	-10.0	19.4	6.34	19.4	6.48	19.4	6.61	19.4	6.68	18.7	6.42	17.5	5.88
	-8.5	-9.1	19.8	6.40	19.8	6.53	19.8	6.66	19.4	6.52	18.7	6.25	17.5	5.73
	-7.0	-7.6	20.6	6.49	20.6	6.62	20.0	6.48	19.4	6.22	18.7	5.97	17.5	5.50
	-5.0	-5.6	21.7	5.89	21.3	6.57	20.0	6.08	19.4	5.85	18.7	5.61	17.5	5.16
	-3.0	-3.7	22.5	5.93	21.3	6.18	20.0	5.73	19.4	5.53	18.7	5.29	17.5	4.87
	0.0	-0.7	22.5	6.03	21.3	5.61	20.0	5.21	19.4	5.02	18.7	4.82	17.5	4.44
	3.0	2.2	22.5	5.49	21.3	5.12	20.0	4.76	19.4	4.58	18.7	4.41	17.5	4.07
	5.0	4.1	22.5	5.17	21.3	4.83	20.0	4.49	19.4	4.33	18.7	4.17	17.5	3.85
	7.0	6.0	22.5	4.87	21.3	4.56	20.0	4.24	19.4	4.09	18.7	3.94	17.5	3.64
	9.0	7.9	22.5	4.60	21.3	4.30	20.0	4.03	19.4	3.86	18.7	3.73	17.5	3.45
70	11.0	9.8	22.5	4.34	21.3	4.06	20.0	3.79	19.4	3.66	18.7	3.53	17.5	3.27
	13.0	11.8	22.5	4.09	21.3	3.83	20.0	3.58	19.4	3.46	18.7	3.33	17.5	3.09
	15.0	13.7	22.5	3.87	21.3	3.63	20.0	3.40	19.4	3.28	18.7	3.16	17.5	2.94
	-19.8	-20.0	15.7	6.11	15.6	6.25	15.6	6.40	15.6	6.48	15.6	6.55	15.2	6.48
	-18.8	-19.0	16.0	6.16	16.0	6.30	15.9	6.45	15.9	6.52	15.9	6.60	15.2	6.35
	-16.7	-17.0	16.6	6.26	16.6	6.40	16.5	6.54	16.5	6.61	16.4	6.60	15.2	6.05
	-13.7	-15.0	17.3	6.37	17.2	6.50	17.2	6.64	16.9	6.66	16.4	6.28	15.2	5.75
	-11.8	-13.0	18.0	6.48	18.0	6.60	17.5	6.45	16.9	6.20	16.4	5.95	15.2	5.45
	-9.8	-11.0	18.9	6.58	18.7	6.58	17.5	6.09	16.9	5.85	16.4	5.62	15.2	5.16
	-9.5	-10.0	19.4	6.64	18.7	6.38	17.5	5.91	16.9	5.68	16.4	5.46	15.2	5.02
	-8.5	-9.1	19.8	6.68	18.7	6.21	17.5	5.75	16.9	5.53	16.4	5.32	15.2	4.89
	-7.0	-7.6	19.8	6.38	18.7	5.93	17.5	5.50	16.9	5.30	16.4	5.09	15.2	4.68
	-5.0	-5.6	19.8	5.99	18.7	5.58	17.5	5.18	16.9	4.98	16.4	4.79	15.2	4.42
	-3.0	-3.7	19.8	5.64	18.7	5.26	17.5	4.89	16.9	4.71	16.4	4.53	15.2	4.18
	0.0	-0.7	19.8	5.13	18.7	4.82	17.5	4.46	16.9	4.30	16.4	4.14	15.2	3.83
	3.0	2.2	19.8	4.69	18.7	0.11	17.5	4.09	16.9	3.94	16.4	3.80	15.2	3.51
5.0	4.1	19.8	4.43	18.7	4.14	17.5	3.87	16.9	3.73	16.4	3.60	15.2	3.33	
7.0	6.0	19.8	4.18	18.7	3.92	17.5	3.66	16.9	3.53	16.4	3.41	15.2	3.16	
9.0	7.9	19.8	3.96	18.7	3.71	17.5	3.46	16.9	3.34	16.4	3.23	15.2	2.99	
11.0	9.8	19.8	3.74	18.7	3.51	17.5	3.28	16.9	3.17	16.4	3.06	15.2	2.84	
13.0	11.8	19.8	3.53	18.7	3.32	17.5	3.11	16.9	3.01	16.4	2.90	15.2	2.70	
15.0	13.7	19.8	3.35	18.7	3.15	17.5	2.95	16.9	2.86	16.4	2.76	15.2	2.57	
60	-19.8	-20.0	15.6	6.48	15.6	6.60	15.0	6.35	14.5	6.10	14.0	5.86	13.1	5.38
	-18.8	-19.0	15.9	6.53	15.9	6.65	15.0	6.22	14.5	5.98	14.0	5.73	13.1	5.26
	-16.7	-17.0	16.5	6.61	16.0	6.40	15.0	5.93	14.5	5.70	14.0	5.48	13.1	5.03
	-13.7	-15.0	16.9	6.54	16.0	6.08	15.0	5.64	14.5	5.43	14.0	5.21	13.1	4.79
	-11.8	-13.0	16.9	6.19	16.0	5.76	15.0	5.35	14.5	5.15	14.0	4.95	13.1	4.56
	-9.8	-11.0	16.9	5.85	16.0	5.45	15.0	5.06	14.5	4.87	14.0	4.68	13.1	4.32
	-9.5	-10.0	16.9	5.68	16.0	5.30	15.0	4.92	14.5	4.74	14.0	4.56	13.1	4.20
	-8.5	-9.1	16.9	5.53	16.0	5.16	15.0	4.80	14.5	4.62	14.0	4.44	13.1	4.10
	-7.0	-7.6	16.9	5.29	16.0	4.94	15.0	4.59	14.5	4.43	14.0	4.26	13.1	3.93
	-5.0	-5.6	16.9	4.98	16.0	4.66	15.0	4.33	14.5	4.18	14.0	4.02	13.1	3.72
	-3.0	-3.7	16.9	4.71	16.0	4.40	15.0	4.11	14.5	3.96	14.0	3.81	13.1	3.52
	0.0	-0.7	16.9	4.30	16.0	4.03	15.0	3.76	14.5	3.63	14.0	3.49	13.1	3.23
	3.0	2.2	16.9	3.94	16.0	3.70	15.0	3.46	14.5	3.33	14.0	3.22	13.1	0.13
	5.0	4.1	16.9	3.73	16.0	3.50	15.0	3.27	14.5	3.16	14.0	3.05	13.1	2.83
	7.0	6.0	16.9	3.53	16.0	3.31	15.0	3.10	14.5	3.00	14.0	2.90	13.1	2.69
	9.0	7.9	16.9	3.34	16.0	3.14	15.0	2.94	14.5	2.85	14.0	2.75	13.1	2.56
11.0	9.8	16.9	3.17	16.0	2.98	15.0	2.80	14.5	2.71	14.0	2.61	13.1	2.44	
13.0	11.8	16.9	3.00	16.0	2.83	15.0	2.66	14.5	2.57	14.0	2.48	13.1	2.32	
15.0	13.7	16.9	2.86	16.0	2.68	15.0	2.53	14.5	2.45	14.0	2.37	13.1	2.21	

GMV5 DC Inverter VRF Units Technical Sales Guide

110	-19.8	-20.0	20.2	6.14	20.1	6.45	20.0	6.76	20.0	6.91	20.0	7.06	19.9	7.38
	-18.8	-19.0	20.5	6.24	20.5	6.54	220.4	6.84	20.4	7.00	20.3	7.15	20.3	7.45
	-16.7	-17.0	21.3	6.45	21.2	6.74	21.2	7.03	21.1	7.18	21.1	7.33	21.0	7.61
	-13.7	-15.0	22.2	6.66	22.1	6.95	22.0	7.22	22.0	7.37	22.0	7.51	21.9	7.78
	-11.8	-13.0	23.1	6.89	23.1	7.16	23.0	7.42	23.0	7.56	22.9	7.69	22.9	7.96
	-9.8	-11.0	24.2	7.11	24.1	7.37	24.1	7.62	24.0	7.75	24.0	7.88	24.0	8.13
	-9.5	-10.0	24.8	7.22	24.7	7.47	24.6	7.73	24.6	7.85	24.6	7.97	24.5	8.22
	-8.5	-9.1	25.3	7.32	25.2	7.57	25.2	7.81	25.2	7.93	25.1	8.06	25.1	8.30
	-7.0	-7.6	26.2	7.49	26.2	7.72	26.1	7.95	26.1	8.08	26.4	8.19	26.0	8.43
	-5.0	-5.6	27.6	7.70	27.5	7.93	27.4	8.14	27.4	8.26	28.7	8.37	27.3	8.60
	-3.0	-3.7	28.9	7.90	28.9	8.11	28.8	8.32	28.8	8.43	31.1	8.53	28.7	8.75
	0.0	-0.7	31.2	8.19	31.2	8.39	31.1	8.59	31.1	8.68	32.4	8.79	30.2	8.62
	3.0	2.2	33.7	8.47	33.6	8.65	33.6	8.83	33.5	8.91	32.4	8.55	30.2	7.84
	5.0	4.1	35.4	8.63	35.4	8.81	34.7	8.72	33.5	8.37	32.4	8.04	30.2	7.38
	7.0	6.0	37.2	8.79	36.9	8.84	34.7	8.19	33.5	7.87	32.4	7.56	30.2	6.94
9.0	7.9	39.1	8.93	36.9	8.31	34.7	7.71	33.5	7.40	32.4	7.11	30.2	6.54	
11.0	9.8	39.1	8.40	36.9	7.82	34.7	7.25	33.5	6.98	32.4	6.70	30.2	6.17	
13.0	11.8	39.1	7.88	36.9	7.34	34.7	6.82	33.5	6.56	32.4	6.30	30.2	5.81	
15.0	13.7	39.1	7.42	36.9	6.92	34.7	6.44	33.5	6.19	32.4	5.96	30.2	5.50	
100	-19.8	-20.0	20.1	6.64	20.0	6.91	20.0	7.20	19.9	7.34	19.9	7.47	19.8	7.75
	-18.8	-19.0	20.4	6.72	20.4	7.00	20.3	7.27	20.3	7.41	20.2	7.56	20.2	7.83
	-16.7	-17.0	21.2	6.91	21.1	7.18	21.1	7.44	21.1	7.57	21.0	7.71	21.0	7.97
	-13.7	-15.0	22.1	7.11	22.0	7.37	22.0	7.62	21.9	7.75	21.9	7.88	21.8	8.13
	-11.8	-13.0	23.0	7.32	23.0	7.56	22.9	7.80	22.9	7.93	22.9	7.76	22.8	8.30
	-9.8	-11.0	24.1	7.52	24.0	7.75	24.0	7.98	24.0	8.11	23.9	8.22	23.9	8.45
	-9.5	-10.0	24.7	7.62	24.6	7.85	24.6	8.08	24.5	8.19	24.5	8.30	24.4	8.53
	-8.5	-9.1	25.2	7.71	25.2	7.93	25.1	8.15	25.1	8.27	25.0	8.38	25.0	8.60
	-7.0	-7.6	26.1	7.86	26.1	8.08	26.0	8.29	26.0	8.40	26.0	8.50	25.9	8.72
	-5.0	-5.6	27.5	8.06	27.4	8.26	27.4	8.47	27.3	8.57	27.3	8.66	27.3	8.87
	-3.0	-3.7	28.8	8.24	28.8	8.43	28.7	8.63	28.7	8.72	28.7	8.82	27.5	8.45
	0.0	-0.7	31.1	8.51	31.1	8.68	31.0	8.86	30.5	8.72	29.5	8.36	27.5	7.68
	3.0	2.2	33.6	8.75	33.5	8.91	31.5	8.25	30.5	7.93	29.5	7.61	27.5	6.99
	5.0	4.1	35.3	8.91	33.5	8.37	31.5	7.75	30.5	7.46	29.5	7.17	27.5	6.59
	7.0	6.0	35.5	8.46	33.5	7.87	31.5	7.30	30.5	7.02	29.5	6.75	27.5	6.21
9.0	7.9	35.5	7.94	33.5	7.40	31.5	6.87	30.5	6.62	29.5	6.36	27.5	5.86	
11.0	9.8	35.5	7.48	33.5	6.98	31.5	6.48	30.5	6.24	29.5	6.00	27.5	5.54	
13.0	11.8	35.5	7.02	33.5	6.56	31.5	6.11	30.5	5.88	29.5	5.66	27.5	5.22	
15.0	13.7	35.5	6.63	33.5	6.19	31.5	5.76	30.5	5.56	29.5	5.35	27.5	4.95	
90	-19.8	-20.0	20.0	7.13	19.9	7.38	19.9	7.63	19.8	7.75	19.8	7.89	19.8	8.13
	-18.8	-19.0	20.3	7.20	20.3	7.46	20.2	7.71	20.2	7.83	20.2	7.95	20.1	8.20
	-16.7	-17.0	21.1	7.38	21.0	7.62	21.0	7.86	21.0	7.98	20.9	8.10	20.9	8.33
	-13.7	-15.0	22.0	7.57	21.9	7.79	21.9	8.02	21.8	8.06	21.8	8.25	21.8	8.48
	-11.8	-13.0	22.9	7.75	22.9	7.96	22.8	8.18	22.8	8.30	22.8	8.40	22.7	8.62
	-9.8	-11.0	24.0	7.93	24.0	8.13	23.9	8.34	23.9	8.46	23.9	8.56	23.8	8.77
	-9.5	-10.0	24.6	8.02	24.5	8.23	24.5	8.43	24.4	8.53	24.4	8.64	24.4	8.84
	-8.5	-9.1	25.1	8.11	25.1	8.30	25.0	8.50	25.0	8.60	25.0	8.70	24.7	8.79
	-7.0	-7.6	26.0	8.24	26.0	8.43	25.9	8.63	25.9	8.72	25.9	8.82	24.7	8.39
	-5.0	-5.6	27.4	8.42	27.3	8.60	27.3	8.78	27.3	8.87	26.5	8.60	24.7	7.89
	-3.0	-3.7	28.7	8.58	28.7	8.80	28.4	8.79	27.4	8.44	26.5	8.10	24.7	7.43
	0.0	-0.7	31.1	8.83	30.2	7.66	28.4	7.97	27.4	7.66	26.5	7.36	24.7	6.76
	3.0	2.2	32.0	8.41	30.2	7.83	28.4	7.26	27.4	6.99	26.5	6.71	24.7	6.18
	5.0	4.1	32.0	7.91	30.2	7.37	28.4	6.84	27.4	6.58	26.5	6.33	24.7	5.83
	7.0	6.0	32.0	7.43	30.2	6.94	28.4	6.45	27.4	6.21	26.5	5.97	24.7	5.51
9.0	7.9	32.0	7.01	30.2	6.53	28.4	6.08	27.4	5.86	26.5	5.64	24.7	5.20	
11.0	9.8	32.0	6.60	30.2	6.16	28.4	5.74	27.4	5.54	26.5	5.33	24.7	4.93	
13.0	11.8	32.0	6.21	30.2	5.81	28.4	5.41	27.4	5.22	26.5	5.03	24.7	4.65	
15.0	13.7	32.0	5.87	30.2	5.49	28.4	5.13	27.4	4.93	26.5	4.77	24.7	4.42	

80	-19.8	-20.0	19.9	7.62	19.8	7.84	19.8	8.07	19.8	8.18	19.7	8.30	19.7	8.51
	-18.8	-19.0	20.2	7.69	20.2	7.92	20.1	8.13	20.1	8.25	20.1	8.35	20.0	8.58
	-16.7	-17.0	21.0	7.85	20.9	8.06	20.9	8.28	20.9	8.38	20.9	8.48	20.8	8.69
	-13.7	-15.0	21.9	8.01	21.8	8.21	21.8	8.42	21.8	8.51	21.7	8.62	21.7	8.83
	-11.8	-13.0	22.8	8.17	22.8	8.37	22.7	8.56	22.7	8.66	22.7	8.76	22.0	8.52
	-9.8	-11.0	23.9	8.33	23.9	8.52	23.8	8.71	23.8	8.80	23.6	8.78	22.0	8.05
	-9.5	-10.0	24.5	8.42	24.4	8.60	24.4	8.78	24.4	8.87	23.6	8.52	22.0	7.81
	-8.5	-9.1	25.0	8.49	25.0	8.67	24.9	8.84	24.4	8.66	23.6	8.30	22.0	7.60
	-7.0	-7.6	25.9	8.62	25.9	8.79	25.2	8.60	24.4	8.26	23.6	7.93	22.0	7.30
	-5.0	-5.6	27.3	7.82	26.8	8.72	25.2	8.08	24.4	7.76	23.6	7.45	22.0	6.84
	-3.0	-3.7	28.4	7.87	26.8	8.21	25.2	7.60	24.4	7.35	23.6	7.02	22.0	6.47
	0.0	-0.7	28.4	8.00	26.8	7.45	25.2	6.92	24.4	6.66	23.6	6.40	22.0	5.90
	3.0	2.2	28.4	7.29	26.8	6.80	25.2	6.32	24.4	6.09	23.6	5.86	22.0	5.40
	5.0	4.1	28.4	6.86	26.8	6.41	25.2	5.96	24.4	5.74	23.6	5.54	22.0	5.11
	7.0	6.0	28.4	6.47	26.8	6.06	25.2	5.63	24.4	5.43	23.6	5.23	22.0	4.83
9.0	7.9	28.4	6.11	26.8	5.71	25.2	5.35	24.4	5.13	23.6	4.95	22.0	4.58	
11.0	9.8	28.4	5.76	26.8	5.39	25.2	5.03	24.4	4.85	23.6	4.68	22.0	4.34	
13.0	11.8	28.4	5.43	26.8	5.09	25.2	4.76	24.4	4.59	23.6	4.43	22.0	4.10	
15.0	13.7	28.4	5.14	26.8	4.83	25.2	4.51	24.4	4.35	23.6	4.20	22.0	3.91	
70	-19.8	-20.0	19.8	8.11	19.7	8.30	19.7	8.50	19.7	8.60	19.7	8.70	19.2	8.61
	-18.8	-19.0	20.1	8.18	20.1	8.37	20.0	8.56	20.0	8.66	20.0	8.76	19.2	8.43
	-16.7	-17.0	20.9	8.31	20.9	8.50	20.8	8.68	20.8	8.78	20.6	8.77	19.2	8.04
	-13.7	-15.0	21.8	8.46	21.7	8.64	21.7	8.82	21.3	8.452	20.6	8.33	19.2	7.64
	-11.8	-13.0	22.7	8.60	22.7	8.77	22.1	8.56	21.3	8.23	20.6	7.90	19.2	7.24
	-9.8	-11.0	23.8	8.74	23.5	8.73	22.1	8.09	21.3	7.77	20.6	7.46	19.2	6.85
	-9.5	-10.0	24.4	8.82	23.5	8.48	22.1	7.85	21.3	7.55	20.6	7.25	19.2	6.66
	-8.5	-9.1	24.9	8.86	23.5	8.25	22.1	7.64	21.3	7.35	20.6	7.06	19.2	6.49
	-7.0	-7.6	24.9	8.47	23.5	7.88	22.1	7.31	21.3	7.03	20.6	6.76	19.2	6.22
	-5.0	-5.6	24.9	7.95	23.5	7.41	22.1	6.88	21.3	6.62	20.6	6.36	19.2	5.87
	-3.0	-3.7	24.9	7.49	23.5	6.99	22.1	6.49	21.3	6.25	20.6	6.01	19.2	5.55
	0.0	-0.7	24.9	6.82	23.5	6.40	22.1	5.93	21.3	5.71	20.6	5.50	19.2	5.08
	3.0	2.2	24.9	6.23	23.5	0.14	22.1	5.43	21.3	5.23	20.6	5.04	19.2	4.66
	5.0	4.1	24.9	5.88	23.5	5.50	22.1	5.14	21.3	4.95	20.6	4.78	19.2	4.42
	7.0	6.0	24.9	5.56	23.5	5.20	22.1	4.85	21.3	4.68	20.6	4.52	19.2	4.19
9.0	7.9	24.9	5.25	23.5	4.92	22.1	4.60	21.3	4.44	20.6	4.28	19.2	3.97	
11.0	9.8	24.9	4.97	23.5	4.65	22.1	4.36	21.3	4.21	20.6	4.07	19.2	3.77	
13.0	11.8	24.9	4.69	23.5	4.41	22.1	4.12	21.3	3.99	20.6	3.85	19.2	3.58	
15.0	13.7	24.9	4.45	23.5	4.18	22.1	3.92	21.3	3.79	20.6	3.66	19.2	3.41	
60	-19.8	-20.0	19.7	8.61	19.6	8.77	18.9	8.44	18.3	8.11	17.7	7.78	16.5	7.14
	-18.8	-19.0	20.0	8.66	20.0	8.83	18.9	8.26	18.3	7.93	17.7	7.61	16.5	6.99
	-16.7	-17.0	20.8	8.78	20.1	8.50	18.9	7.88	18.3	7.57	17.7	7.27	16.5	6.68
	-13.7	-15.0	21.3	8.68	20.1	8.08	18.9	7.49	18.3	7.20	17.7	6.92	16.5	6.36
	-11.8	-13.0	21.3	8.22	20.1	7.65	18.9	7.10	18.3	6.84	17.7	6.57	16.5	6.05
	-9.8	-11.0	21.3	7.76	20.1	7.23	18.9	6.72	18.3	6.47	17.7	6.22	16.5	5.74
	-9.5	-10.0	21.3	7.55	20.1	7.03	18.9	6.53	18.3	6.29	17.7	6.05	16.5	5.57
	-8.5	-9.1	21.3	7.35	20.1	6.85	18.9	6.37	18.3	6.13	17.7	5.90	16.5	5.44
	-7.0	-7.6	21.3	7.02	20.1	6.56	18.9	6.10	18.3	5.88	17.7	5.65	16.5	5.22
	-5.0	-5.6	21.3	6.62	20.1	6.18	18.9	5.75	18.3	5.55	17.7	5.34	16.5	4.94
	-3.0	-3.7	21.3	6.25	20.1	5.84	18.9	5.46	18.3	5.25	17.7	5.05	16.5	4.67
	0.0	-0.7	21.3	5.71	20.1	5.35	18.9	4.99	18.3	4.82	17.7	4.64	16.5	4.29
	3.0	2.2	21.3	5.23	20.1	4.91	18.9	4.59	18.3	4.43	17.7	4.28	16.5	0.17
	5.0	4.1	21.3	4.95	20.1	4.65	18.9	4.34	18.3	4.20	17.7	4.05	16.5	3.76
	7.0	6.0	21.3	4.68	20.1	4.40	18.9	4.11	18.3	3.98	17.7	3.85	16.5	3.57
9.0	7.9	21.3	4.44	20.1	4.17	18.9	3.91	18.3	3.78	17.7	3.65	16.5	3.40	
11.0	9.8	21.3	4.21	20.1	3.96	18.9	3.72	18.3	3.59	17.7	3.47	16.5	3.24	
13.0	11.8	21.3	3.98	20.1	3.75	18.9	3.53	18.3	3.41	17.7	3.30	16.5	3.08	
15.0	13.7	21.3	3.79	20.1	3.56	18.9	3.36	18.3	3.25	17.7	3.15	16.5	2.94	

110	-19.8	-20.0	24.0	7.58	23.9	7.95	23.8	8.33	23.8	8.52	23.8	8.71	23.7	9.09
	-18.8	-19.0	24.4	7.69	24.4	8.07	262.3	8.44	24.3	8.63	24.2	8.81	24.2	9.19
	-16.7	-17.0	25.3	7.95	25.2	8.31	25.2	8.67	25.1	8.85	25.1	9.04	25.0	9.39
	-13.7	-15.0	26.4	8.22	26.3	8.57	26.2	8.91	26.2	9.08	26.2	9.26	26.1	9.60
	-11.8	-13.0	27.5	8.50	27.5	8.83	27.4	9.15	27.4	9.32	27.3	9.48	27.3	9.82
	-9.8	-11.0	28.8	8.77	28.7	9.08	28.7	9.40	28.6	9.56	28.6	9.71	28.6	10.03
	-9.5	-10.0	29.5	8.91	29.4	9.21	29.3	9.53	29.3	9.68	29.3	9.83	29.2	10.14
	-8.5	-9.1	30.1	9.02	30.0	9.33	30.0	9.63	30.0	9.78	29.9	9.94	29.9	10.23
	-7.0	-7.6	31.2	9.24	31.2	9.52	31.1	9.81	31.1	9.96	31.4	10.10	30.9	10.39
	-5.0	-5.6	32.8	9.49	32.7	9.77	32.6	10.04	32.6	10.18	34.2	10.32	32.5	10.60
	-3.0	-3.7	34.4	9.74	34.4	9.99	34.3	10.26	34.3	10.39	37.0	10.52	34.2	10.79
	0.0	-0.7	37.1	10.10	37.1	10.35	37.0	10.59	37.0	10.71	38.6	10.84	35.9	10.63
	3.0	2.2	40.1	10.44	40.0	10.66	40.0	10.88	39.9	10.99	38.6	10.54	35.9	9.67
	5.0	4.1	42.1	10.64	42.1	10.86	41.3	10.75	39.9	10.32	38.6	9.91	35.9	9.09
	7.0	6.0	44.3	10.84	43.9	10.91	41.3	10.10	39.9	9.70	38.6	9.32	35.9	8.56
	9.0	7.9	46.5	11.01	43.9	10.25	41.3	9.50	39.9	9.13	38.6	8.77	35.9	8.07
11.0	9.8	46.5	10.36	43.9	9.64	41.3	8.94	39.9	8.60	38.6	8.26	35.9	7.61	
13.0	11.8	46.5	9.71	43.9	9.05	41.3	8.41	39.9	8.09	38.6	7.77	35.9	7.17	
15.0	13.7	46.5	9.15	43.9	8.53	41.3	7.94	39.9	7.63	38.6	7.35	35.9	6.78	
100	-19.8	-20.0	23.9	8.18	23.8	8.52	23.8	8.87	23.7	9.05	23.7	9.21	23.6	9.56
	-18.8	-19.0	24.3	8.29	24.3	8.63	24.2	8.97	24.2	9.14	24.0	9.32	24.0	9.66
	-16.7	-17.0	25.2	8.52	25.1	8.85	25.1	9.18	25.1	9.34	25.0	9.50	25.0	9.83
	-13.7	-15.0	26.3	8.77	26.2	9.08	26.2	9.40	26.1	9.56	26.1	9.71	25.9	10.03
	-11.8	-13.0	27.4	9.02	27.4	9.32	27.3	9.62	27.3	9.77	27.3	9.57	27.1	10.23
	-9.8	-11.0	28.7	9.27	28.6	9.56	28.6	9.84	28.6	9.99	28.4	10.14	28.4	10.42
	-9.5	-10.0	29.4	9.40	29.3	9.68	29.3	9.96	29.2	10.10	29.2	10.24	29.0	10.52
	-8.5	-9.1	30.0	9.50	30.0	9.78	29.9	10.05	29.9	10.19	29.8	10.33	29.8	10.60
	-7.0	-7.6	31.1	9.69	31.1	9.96	30.9	10.22	30.9	10.36	30.9	10.49	30.8	10.75
	-5.0	-5.6	32.7	9.94	32.6	10.18	32.6	10.44	32.5	10.57	32.5	10.68	32.5	10.94
	-3.0	-3.7	34.3	10.16	34.3	10.39	34.2	10.64	34.2	10.75	34.2	10.87	32.7	10.42
	0.0	-0.7	37.0	10.50	37.0	10.71	36.9	10.93	36.3	10.75	35.1	10.31	32.7	9.47
	3.0	2.2	40.0	10.79	39.9	10.99	37.5	10.17	36.3	9.77	35.1	9.39	32.7	8.62
	5.0	4.1	42.0	10.99	39.9	10.32	37.5	9.56	36.3	9.20	35.1	8.84	32.7	8.12
	7.0	6.0	42.2	10.43	39.9	9.70	37.5	9.00	36.3	8.66	35.1	8.32	32.7	7.66
	9.0	7.9	42.2	9.80	39.9	9.13	37.5	8.48	36.3	8.16	35.1	7.84	32.7	7.22
11.0	9.8	42.2	9.22	39.9	8.60	37.5	8.00	36.3	7.69	35.1	7.40	32.7	6.83	
13.0	11.8	42.2	8.66	39.9	8.09	37.5	7.53	36.3	7.25	35.1	6.98	32.7	6.44	
15.0	13.7	42.2	8.17	39.9	7.63	37.5	7.11	36.3	6.85	35.1	6.59	32.7	6.10	
90	-19.8	-20.0	23.8	8.79	23.7	9.09	23.7	9.41	23.6	9.56	23.6	9.73	23.6	10.03
	-18.8	-19.0	24.2	8.88	24.2	9.20	24.0	9.50	24.0	9.66	24.0	9.81	23.9	10.11
	-16.7	-17.0	25.1	9.11	25.0	9.40	25.0	9.69	25.0	9.84	24.9	9.98	24.9	10.28
	-13.7	-15.0	26.2	9.33	26.1	9.61	26.1	9.89	25.9	9.94	25.9	10.17	25.9	10.45
	-11.8	-13.0	27.3	9.55	27.3	9.82	27.1	10.09	27.1	10.23	27.1	10.36	27.0	10.63
	-9.8	-11.0	28.6	9.77	28.6	10.03	28.4	10.29	28.4	10.43	28.4	10.56	28.3	10.81
	-9.5	-10.0	29.3	9.89	29.2	10.15	29.2	10.39	29.0	10.52	29.0	10.65	29.0	10.90
	-8.5	-9.1	29.9	9.99	29.9	10.24	29.8	10.49	29.8	10.60	29.8	10.73	29.4	10.84
	-7.0	-7.6	30.9	10.16	30.9	10.39	30.8	10.64	30.8	10.75	30.8	10.87	29.4	10.35
	-5.0	-5.6	32.6	10.38	32.5	10.60	32.5	10.82	32.5	10.94	31.5	10.60	29.4	9.73
	-3.0	-3.7	34.2	10.58	34.2	9.62	33.8	10.84	32.6	10.40	31.5	9.98	29.4	9.16
	0.0	-0.7	37.0	10.88	35.9	9.45	33.8	9.83	32.6	9.45	31.5	9.07	29.4	8.33
	3.0	2.2	38.1	10.37	35.9	9.66	33.8	8.95	32.6	8.62	31.5	8.28	29.4	7.62
	5.0	4.1	38.1	9.75	35.9	9.08	33.8	8.44	32.6	8.11	31.5	7.81	29.4	7.19
	7.0	6.0	38.1	9.16	35.9	8.56	33.8	7.95	32.6	7.66	31.5	7.36	29.4	6.79
	9.0	7.9	38.1	8.64	35.9	8.05	33.8	7.49	32.6	7.22	31.5	6.96	29.4	6.42
11.0	9.8	38.1	8.14	35.9	7.60	33.8	7.08	32.6	6.83	31.5	6.57	29.4	6.08	
13.0	11.8	38.1	7.66	35.9	7.17	33.8	6.67	32.6	6.44	31.5	6.21	29.4	5.74	
15.0	13.7	38.1	7.24	35.9	6.77	33.8	6.32	32.6	6.08	31.5	5.88	29.4	5.45	

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80	-19.8	-20.0	23.7	9.40	23.6	9.67	23.6	9.95	23.6	10.09	23.4	10.23	23.4	10.50
	-18.8	-19.0	24.0	9.48	24.0	9.76	23.9	10.03	23.9	10.17	23.9	10.30	23.8	10.58
	-16.7	-17.0	25.0	9.68	24.9	9.94	24.9	10.21	24.9	10.33	24.9	10.46	24.8	10.72
	-13.7	-15.0	26.1	9.88	25.9	10.12	25.9	10.38	25.9	10.50	25.8	10.63	25.8	10.88
	-11.8	-13.0	27.1	10.08	27.1	10.32	27.0	10.56	27.0	10.67	27.0	10.80	26.2	10.51
	-9.8	-11.0	28.4	10.28	28.4	10.51	28.3	10.74	28.3	10.85	28.1	10.82	26.2	9.92
	-9.5	-10.0	29.2	10.38	29.0	10.60	29.0	10.82	29.0	10.94	28.1	10.51	26.2	9.63
	-8.5	-9.1	29.8	10.47	29.8	10.70	29.6	10.91	29.0	10.67	28.1	10.23	26.2	9.38
	-7.0	-7.6	30.8	10.63	30.8	10.84	30.0	10.60	29.0	10.18	28.1	9.77	26.2	9.00
	-5.0	-5.6	32.5	9.64	31.9	10.75	30.0	9.96	29.0	9.57	28.1	9.19	26.2	8.44
	-3.0	-3.7	33.8	9.70	31.9	10.12	30.0	9.38	29.0	9.06	28.1	8.66	26.2	7.97
	0.0	-0.7	33.8	9.87	31.9	9.19	30.0	8.53	29.0	8.22	28.1	7.89	26.2	7.27
	3.0	2.2	33.8	8.99	31.9	8.38	30.0	7.80	29.0	7.50	28.1	7.22	26.2	6.66
	5.0	4.1	33.8	8.46	31.9	7.90	30.0	7.35	29.0	7.08	28.1	6.83	26.2	6.30
	7.0	6.0	33.8	7.97	31.9	7.47	30.0	6.94	29.0	6.70	28.1	6.45	26.2	5.96
	9.0	7.9	33.8	7.53	31.9	7.04	30.0	6.59	29.0	6.32	28.1	6.10	26.2	5.65
70	11.0	9.8	33.8	7.11	31.9	6.65	30.0	6.21	29.0	5.99	28.1	5.77	26.2	5.35
	13.0	11.8	33.8	6.70	31.9	6.28	30.0	5.87	29.0	5.66	28.1	5.46	26.2	5.06
	15.0	13.7	33.8	6.34	31.9	5.95	30.0	5.56	29.0	5.37	28.1	5.18	26.2	4.82
	-19.8	-20.0	23.6	10.01	23.4	10.24	23.4	10.49	23.4	10.60	23.4	10.73	22.8	10.61
	-18.8	-19.0	23.9	10.09	23.9	10.32	23.8	10.56	23.8	10.67	23.8	10.80	22.8	10.39
	-16.7	-17.0	24.9	10.25	24.9	10.49	24.8	10.71	24.8	10.82	24.5	10.81	22.8	9.91
	-13.7	-15.0	25.9	10.43	25.8	10.65	25.8	10.87	25.3	10.4.23	24.5	10.28	22.8	9.42
	-11.8	-13.0	27.0	10.60	27.0	10.81	26.3	10.56	25.3	10.15	24.5	9.74	22.8	8.93
	-9.8	-11.0	28.3	10.78	28.0	10.77	26.3	9.97	25.3	9.59	24.5	9.20	22.8	8.45
	-9.5	-10.0	29.0	10.87	28.0	10.45	26.3	9.68	25.3	9.31	24.5	8.94	22.8	8.22
	-8.5	-9.1	29.6	10.93	28.0	10.17	26.3	9.42	25.3	9.06	24.5	8.71	22.8	8.01
	-7.0	-7.6	29.6	10.44	28.0	9.71	26.3	9.01	25.3	8.67	24.5	8.33	22.8	7.67
	-5.0	-5.6	29.6	9.81	28.0	9.14	26.3	8.49	25.3	8.16	24.5	7.84	22.8	7.24
	-3.0	-3.7	29.6	9.24	28.0	8.62	26.3	8.01	25.3	7.70	24.5	7.41	22.8	6.84
	0.0	-0.7	29.6	8.41	28.0	7.89	26.3	7.31	25.3	7.04	24.5	6.78	22.8	6.27
	3.0	2.2	29.6	7.68	28.0	0.18	26.3	6.70	25.3	6.45	24.5	6.22	22.8	5.75
5.0	4.1	29.6	7.25	28.0	6.78	26.3	6.34	25.3	6.10	24.5	5.89	22.8	5.45	
7.0	6.0	29.6	6.85	28.0	6.42	26.3	5.99	25.3	5.77	24.5	5.58	22.8	5.17	
9.0	7.9	29.6	6.48	28.0	6.07	26.3	5.67	25.3	5.47	24.5	5.28	22.8	4.90	
11.0	9.8	29.6	6.13	28.0	5.74	26.3	5.38	25.3	5.19	24.5	5.02	22.8	4.65	
13.0	11.8	29.6	5.79	28.0	5.44	26.3	5.09	25.3	4.92	24.5	4.75	22.8	4.42	
15.0	13.7	29.6	5.48	28.0	5.16	26.3	4.83	25.3	4.68	24.5	4.51	22.8	4.21	
60	-19.8	-20.0	23.4	10.61	23.3	10.81	22.5	10.40	21.8	9.99	21.1	9.60	19.6	8.80
	-18.8	-19.0	23.8	10.68	23.8	10.88	22.5	10.18	21.8	9.78	21.1	9.39	19.6	8.62
	-16.7	-17.0	24.8	10.82	23.9	10.49	22.5	9.71	21.8	9.34	21.1	8.97	19.6	8.24
	-13.7	-15.0	25.3	10.71	23.9	9.96	22.5	9.24	21.8	8.88	21.1	8.53	19.6	7.84
	-11.8	-13.0	25.3	10.14	23.9	9.43	22.5	8.76	21.8	8.43	21.1	8.10	19.6	7.46
	-9.8	-11.0	25.3	9.57	23.9	8.92	22.5	8.29	21.8	7.97	21.1	7.67	19.6	7.07
	-9.5	-10.0	25.3	9.31	23.9	8.67	22.5	8.05	21.8	7.76	21.1	7.46	19.6	6.87
	-8.5	-9.1	25.3	9.06	23.9	8.45	22.5	7.86	21.8	7.56	21.1	7.27	19.6	6.71
	-7.0	-7.6	25.3	8.66	23.9	8.09	22.5	7.52	21.8	7.25	21.1	6.97	19.6	6.44
	-5.0	-5.6	25.3	8.16	23.9	7.62	22.5	7.10	21.8	6.84	21.1	6.58	19.6	6.09
	-3.0	-3.7	25.3	7.70	23.9	7.20	22.5	6.73	21.8	6.48	21.1	6.23	19.6	5.76
	0.0	-0.7	25.3	7.04	23.9	6.59	22.5	6.15	21.8	5.94	21.1	5.72	19.6	5.30
	3.0	2.2	25.3	6.45	23.9	6.06	22.5	5.66	21.8	5.46	21.1	5.27	19.6	0.21
	5.0	4.1	25.3	6.10	23.9	5.73	22.5	5.35	21.8	5.18	21.1	4.99	19.6	4.64
	7.0	6.0	25.3	5.77	23.9	5.42	22.5	5.07	21.8	4.91	21.1	4.75	19.6	4.41
	9.0	7.9	25.3	5.47	23.9	5.14	22.5	4.82	21.8	4.66	21.1	4.50	19.6	4.20
11.0	9.8	25.3	5.19	23.9	4.89	22.5	4.58	21.8	4.43	21.1	4.28	19.6	4.00	
13.0	11.8	25.3	4.91	23.9	4.63	22.5	4.35	21.8	4.21	21.1	4.07	19.6	3.80	
15.0	13.7	25.3	4.68	23.9	4.40	22.5	4.14	21.8	4.01	21.1	3.88	19.6	3.62	

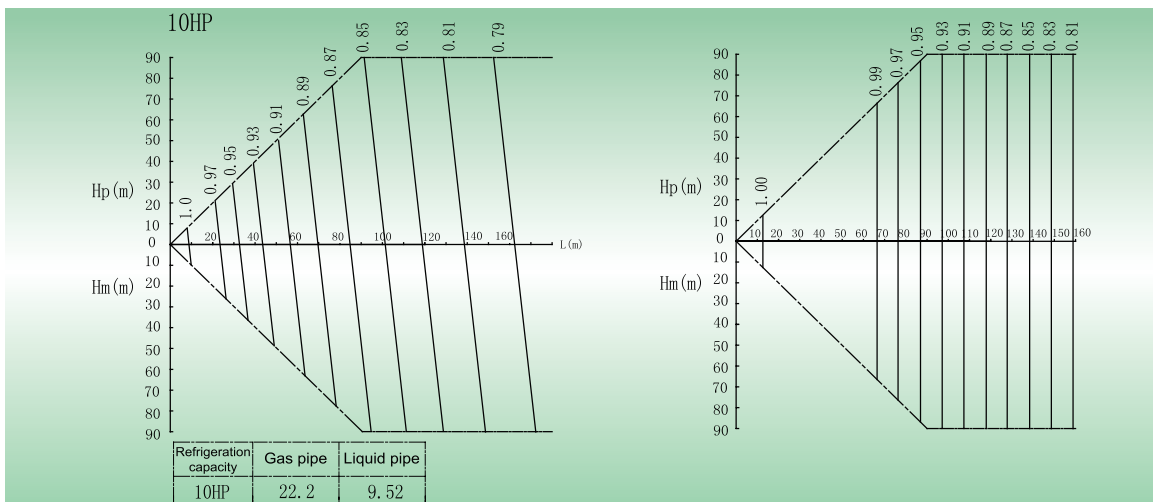
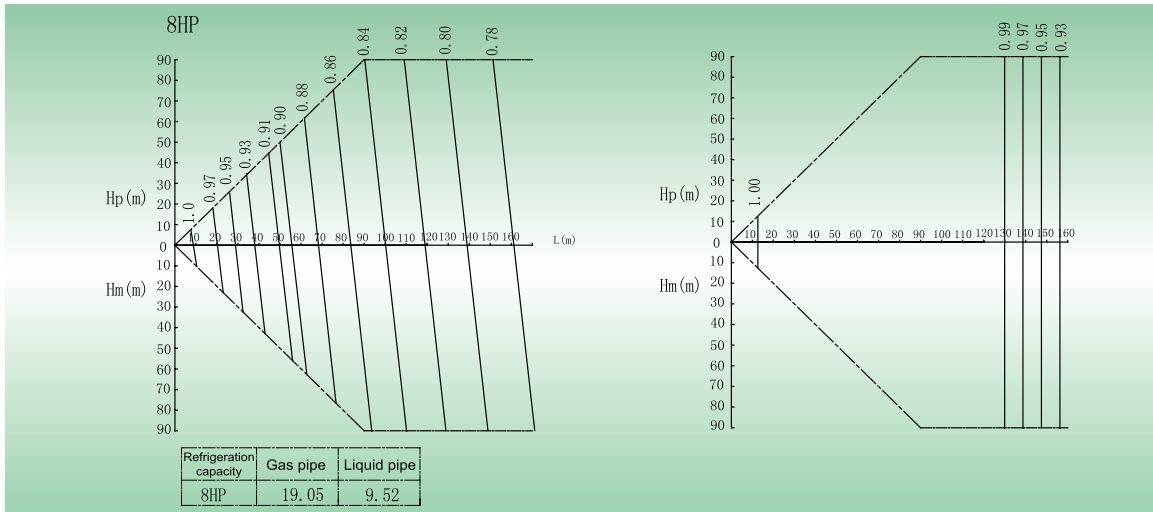
GMV5 DC Inverter VRF Units Technical Sales Guide

80	-19.8	-20.0	31.6	13.57	31.4	13.96	31.4	14.36	31.4	14.57	31.3	14.77	31.3	15.16
	-18.8	-19.0	32.1	13.69	32.1	14.09	31.9	14.48	31.9	14.69	31.9	14.87	31.7	15.28
	-16.7	-17.0	33.3	13.98	33.2	14.35	33.2	14.74	33.2	14.92	33.2	15.11	33.0	15.48
	-13.7	-15.0	34.8	14.26	34.6	14.62	34.6	14.99	34.6	15.16	34.4	15.34	34.4	15.72
	-11.8	-13.0	36.2	14.55	36.2	14.91	36.0	15.24	36.0	15.41	36.0	15.60	34.9	15.18
	-9.8	-11.0	37.9	14.84	37.9	15.18	37.8	15.51	37.8	15.66	37.5	15.63	34.9	14.33
	-9.5	-10.0	38.9	14.99	38.7	15.31	38.7	15.63	38.7	15.80	37.5	15.18	34.9	13.91
	-8.5	-9.1	39.7	15.12	39.7	15.45	39.5	15.75	38.7	15.41	37.5	14.77	34.9	13.54
	-7.0	-7.6	41.1	15.34	41.1	15.65	40.0	15.31	38.7	14.70	37.5	14.11	34.9	13.00
	-5.0	-5.6	43.3	13.93	42.5	15.53	40.0	14.38	38.7	13.82	37.5	13.27	34.9	12.19
	-3.0	-3.7	45.1	14.01	42.5	14.62	40.0	13.54	38.7	13.08	37.5	12.51	34.9	11.51
	0.0	-0.7	45.1	14.25	42.5	13.27	40.0	12.32	38.7	11.87	37.5	11.39	34.9	10.50
	3.0	2.2	45.1	12.98	42.5	12.10	40.0	11.26	38.7	10.84	37.5	10.43	34.9	9.62
	5.0	4.1	45.1	12.22	42.5	11.41	40.0	10.62	38.7	10.23	37.5	9.86	34.9	9.10
	7.0	6.0	45.1	11.51	42.5	10.79	40.0	10.03	38.7	9.67	37.5	9.32	34.9	8.61
	9.0	7.9	45.1	10.87	42.5	10.16	40.0	9.52	38.7	9.13	37.5	8.81	34.9	8.15
	11.0	9.8	45.1	10.26	42.5	9.60	40.0	8.96	38.7	8.64	37.5	8.34	34.9	7.73
13.0	11.8	45.1	9.67	42.5	9.06	40.0	8.47	38.7	8.17	37.5	7.88	34.9	7.31	
15.0	13.7	45.1	9.15	42.5	8.59	40.0	8.03	38.7	7.75	37.5	7.48	34.9	6.95	
70	-19.8	-20.0	31.4	14.45	31.3	14.79	31.3	15.14	31.3	15.31	31.3	15.50	30.5	15.33
	-18.8	-19.0	31.9	14.57	31.9	14.91	31.7	15.24	31.7	15.41	31.7	15.60	30.5	15.01
	-16.7	-17.0	33.2	14.80	33.2	15.14	33.0	15.46	33.0	15.63	32.7	15.61	30.5	14.31
	-13.7	-15.0	34.6	15.06	34.4	15.38	34.4	15.70	33.8	15.05	32.7	14.84	30.5	13.61
	-11.8	-13.0	36.0	15.31	36.0	15.61	35.1	15.24	33.8	14.65	32.7	14.06	30.5	12.90
	-9.8	-11.0	37.8	15.56	37.3	15.55	35.1	14.40	33.8	13.84	32.7	13.28	30.5	12.20
	-9.5	-10.0	38.7	15.70	37.3	15.09	35.1	13.98	33.8	13.44	32.7	12.91	30.5	11.87
	-8.5	-9.1	39.5	15.78	37.3	14.69	35.1	13.61	33.8	13.08	32.7	12.58	30.5	11.56
	-7.0	-7.6	39.5	15.07	37.3	14.03	35.1	13.01	33.8	12.52	32.7	12.04	30.5	11.07
	-5.0	-5.6	39.5	14.16	37.3	13.20	35.1	12.25	33.8	11.78	32.7	11.33	30.5	10.45
	-3.0	-3.7	39.5	13.34	37.3	12.44	35.1	11.56	33.8	11.12	32.7	10.70	30.5	9.87
	0.0	-0.7	39.5	12.14	37.3	11.39	35.1	10.55	33.8	10.16	32.7	9.79	30.5	9.05
	3.0	2.2	39.5	11.09	37.3	0.25	35.1	9.67	33.8	9.32	32.7	8.98	30.5	8.30
	5.0	4.1	39.5	10.47	37.3	9.79	35.1	9.15	33.8	8.81	32.7	8.51	30.5	7.87
	7.0	6.0	39.5	9.89	37.3	9.27	35.1	8.64	33.8	8.34	32.7	8.05	30.5	7.46
	9.0	7.9	39.5	9.35	37.3	8.76	35.1	8.19	33.8	7.90	32.7	7.63	30.5	7.07
	11.0	9.8	39.5	8.85	37.3	8.29	35.1	7.76	33.8	7.49	32.7	7.24	30.5	6.72
13.0	11.8	39.5	8.36	37.3	7.85	35.1	7.34	33.8	7.11	32.7	6.85	30.5	6.38	
15.0	13.7	39.5	7.92	37.3	7.44	35.1	6.97	33.8	6.75	32.7	6.52	30.5	6.08	
60	-19.8	-20.0	31.3	15.33	31.1	15.61	30.0	15.02	29.0	14.43	28.1	13.86	26.2	12.71
	-18.8	-19.0	31.7	15.43	31.7	15.72	30.0	14.70	29.0	14.13	28.1	13.55	26.2	12.44
	-16.7	-17.0	33.0	15.63	31.9	15.14	30.0	14.03	29.0	13.49	28.1	12.95	26.2	11.90
	-13.7	-15.0	33.8	15.46	31.9	14.38	30.0	13.34	29.0	12.83	28.1	12.32	26.2	11.33
	-11.8	-13.0	33.8	14.63	31.9	13.62	30.0	12.64	29.0	12.17	28.1	11.70	26.2	10.77
	-9.8	-11.0	33.8	13.82	31.9	12.88	30.0	11.97	29.0	11.51	28.1	11.07	26.2	10.21
	-9.5	-10.0	33.8	13.44	31.9	12.52	30.0	11.63	29.0	11.21	28.1	10.77	26.2	9.93
	-8.5	-9.1	33.8	13.08	31.9	12.20	30.0	11.34	29.0	10.92	28.1	10.50	26.2	9.69
	-7.0	-7.6	33.8	12.51	31.9	11.68	30.0	10.85	29.0	10.47	28.1	10.06	26.2	9.30
	-5.0	-5.6	33.8	11.78	31.9	11.01	30.0	10.25	29.0	9.87	28.1	9.50	26.2	8.79
	-3.0	-3.7	33.8	11.12	31.9	10.40	30.0	9.72	29.0	9.35	28.1	9.00	26.2	8.32
	0.0	-0.7	33.8	10.16	31.9	9.52	30.0	8.88	29.0	8.58	28.1	8.25	26.2	7.65
	3.0	2.2	33.8	9.32	31.9	8.74	30.0	8.17	29.0	7.88	28.1	7.61	26.2	0.30
	5.0	4.1	33.8	8.81	31.9	8.27	30.0	7.73	29.0	7.48	28.1	7.21	26.2	6.70
	7.0	6.0	33.8	8.34	31.9	7.83	30.0	7.33	29.0	7.09	28.1	6.85	26.2	6.36
	9.0	7.9	33.8	7.90	31.9	7.43	30.0	6.95	29.0	6.74	28.1	6.50	26.2	6.06
	11.0	9.8	33.8	7.49	31.9	7.06	30.0	6.62	29.0	6.40	28.1	6.18	26.2	5.77
13.0	11.8	33.8	7.09	31.9	6.68	30.0	6.28	29.0	6.08	28.1	5.87	26.2	5.49	
15.0	13.7	33.8	6.75	31.9	6.35	30.0	5.98	29.0	5.79	28.1	5.60	26.2	5.23	

50	-19.8	-20.0	28.3	13.94	26.7	12.98	25.1	12.05	24.1	11.61	23.3	11.16	21.7	10.28
	-18.8	-19.0	28.3	13.64	26.7	12.71	25.1	11.82	24.1	11.36	23.3	10.92	21.7	10.08
	-16.7	-17.0	28.3	13.01	26.7	12.14	25.1	11.29	24.1	10.87	23.3	10.47	21.7	9.66
	-13.7	-15.0	28.3	12.39	26.7	11.56	25.1	10.75	24.1	10.36	23.3	9.98	21.7	9.22
	-11.8	-13.0	28.3	11.77	26.7	11.01	25.1	10.23	24.1	9.86	23.3	9.49	21.7	8.78
	-9.8	-11.0	28.3	11.14	26.7	10.41	25.1	9.71	24.1	9.35	23.3	9.01	21.7	8.34
	-9.5	-10.0	28.3	10.84	26.7	10.13	25.1	9.45	24.1	9.12	23.3	8.78	21.7	8.12
	-8.5	-9.1	28.3	10.57	26.7	9.89	25.1	9.22	24.1	8.90	23.3	8.58	21.7	7.93
	-7.0	-7.6	28.3	10.13	26.7	9.52	25.1	8.85	24.1	8.54	23.3	8.24	21.7	7.63
	-5.0	-5.6	28.3	9.55	26.7	8.96	25.1	8.37	24.1	8.09	23.3	7.80	21.7	7.22
	-3.0	-3.7	28.3	9.05	26.7	8.49	25.1	7.93	24.1	7.66	23.3	7.39	21.7	6.87
	0.0	-0.7	28.3	8.30	26.7	7.80	25.1	7.31	24.1	7.06	23.3	6.82	21.7	6.35
	3.0	2.2	28.3	7.65	26.7	7.19	25.1	6.74	24.1	6.52	23.3	6.31	21.7	5.87
	5.0	4.1	28.3	7.26	26.7	6.82	25.1	6.40	24.1	6.19	23.3	5.99	21.7	5.59
	7.0	6.0	28.3	6.89	26.7	6.48	25.1	6.09	24.1	5.89	23.3	5.71	21.7	5.33
	9.0	7.9	28.3	6.53	26.7	6.16	25.1	5.79	24.1	5.62	23.3	5.44	21.7	5.08
11.0	9.8	28.3	6.21	26.7	5.86	25.1	5.52	24.1	5.35	23.3	5.18	21.7	4.84	
13.0	11.8	28.3	5.91	26.7	5.57	25.1	5.25	24.1	5.10	23.3	4.93	21.7	4.63	
15.0	13.7	28.3	5.62	26.7	5.32	25.1	5.01	24.1	4.86	23.3	4.71	21.7	4.41	

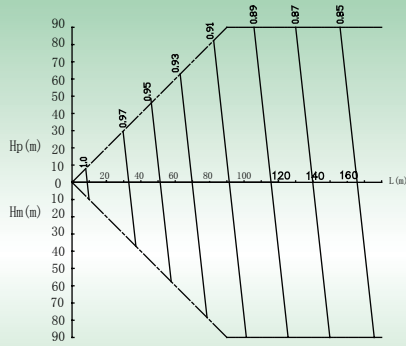
6.2 Correction of Capacity Along with Piping Length and Height Drop

Pipe Diameter Unit: mm

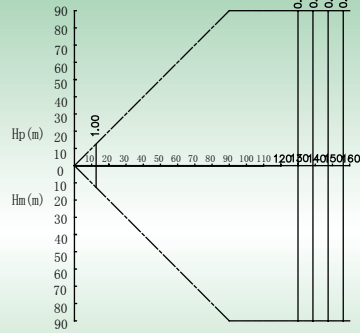


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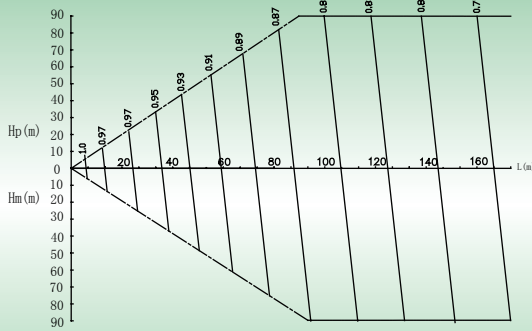
12HP, 14HP, 24HP, 36HP



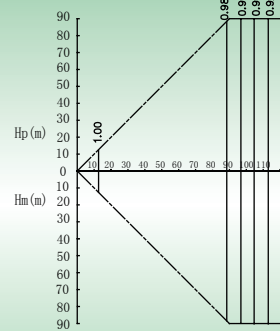
Refrigerant capacity	Gas pipe	Liquid pipe
12HP	25.4	12.7
14HP	25.4	12.7
24HP	28.6	15.9
36HP	38.1	19.05



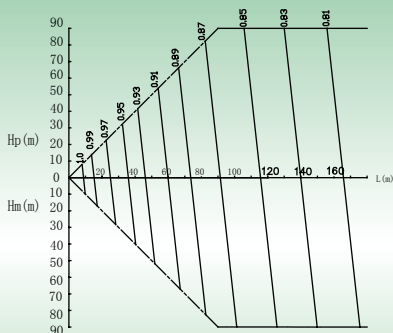
16HP



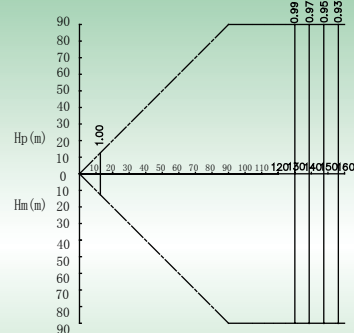
Refrigerant capacity	Gas pipe	Liquid pipe
16HP	28.6	12.7



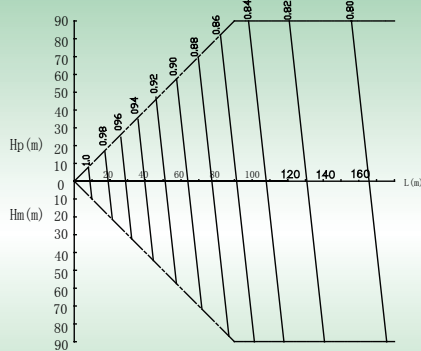
18, 26-30, 38-44HP



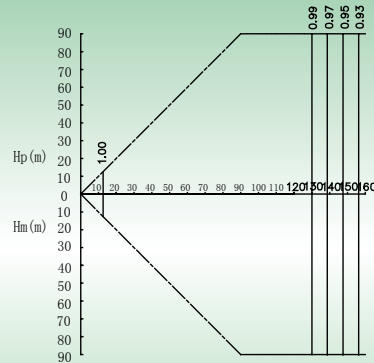
Refrigerant capacity	Gas pipe	Liquid pipe
18-24HP	28.6	15.9
22-30HP	31.8	19.05
38-44HP	38.1	19.05



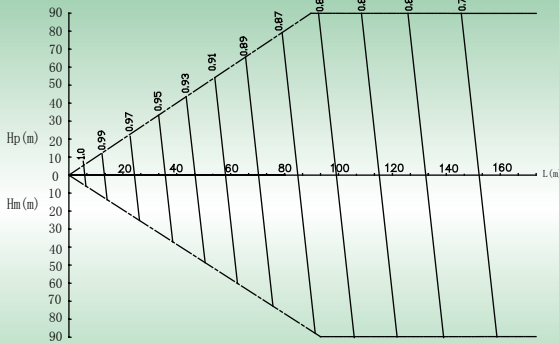
20、32-34HP



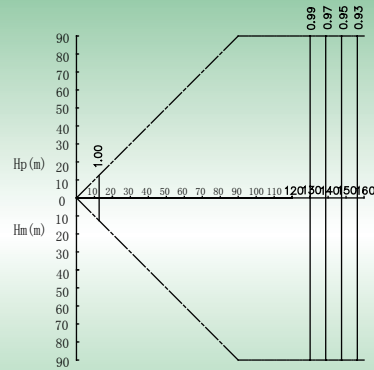
Refrigeration capacity	Gas pipe	Liquid pipe
20HP	28.6	15.9
32-34HP	31.8	19.1



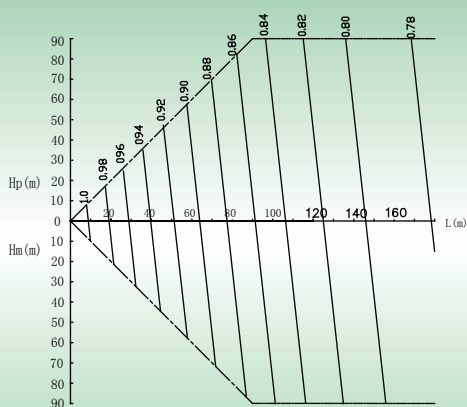
22HP



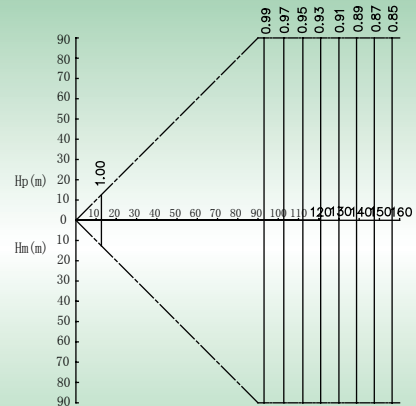
Refrigeration capacity	Gas pipe	Liquid pipe
22HP	28.6	15.9



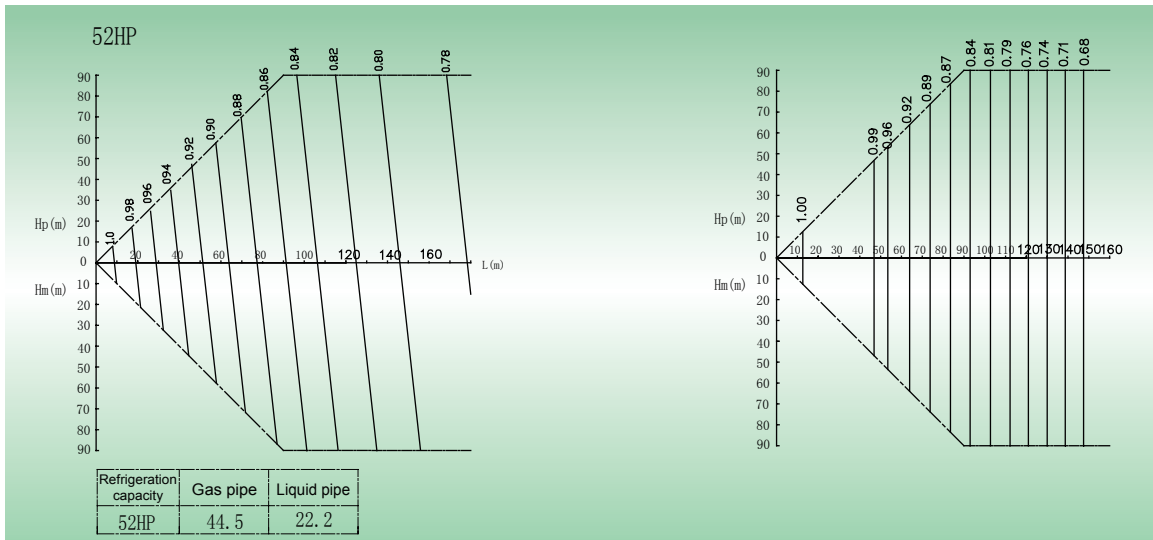
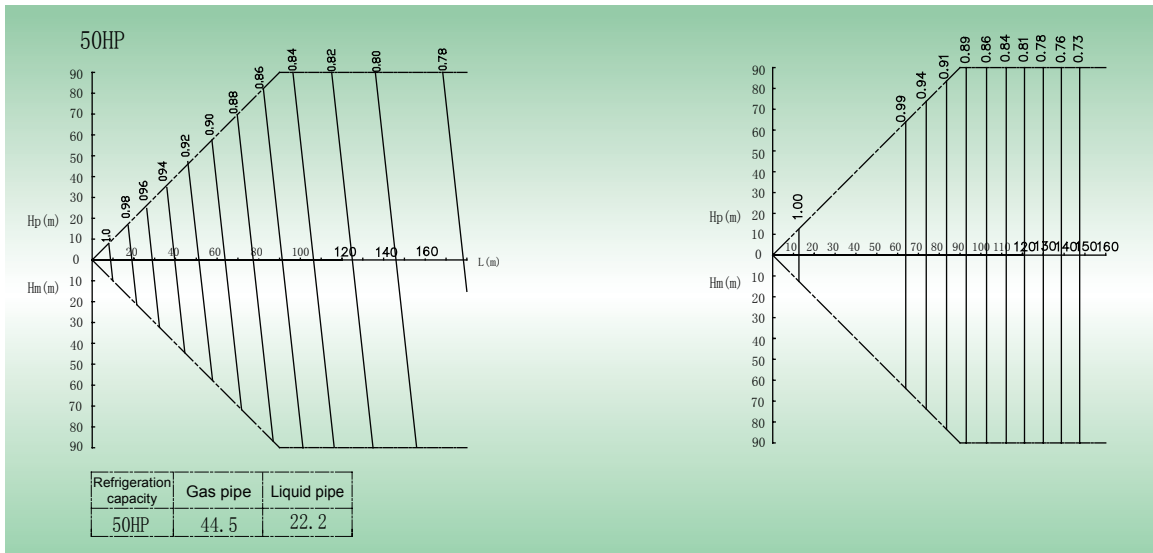
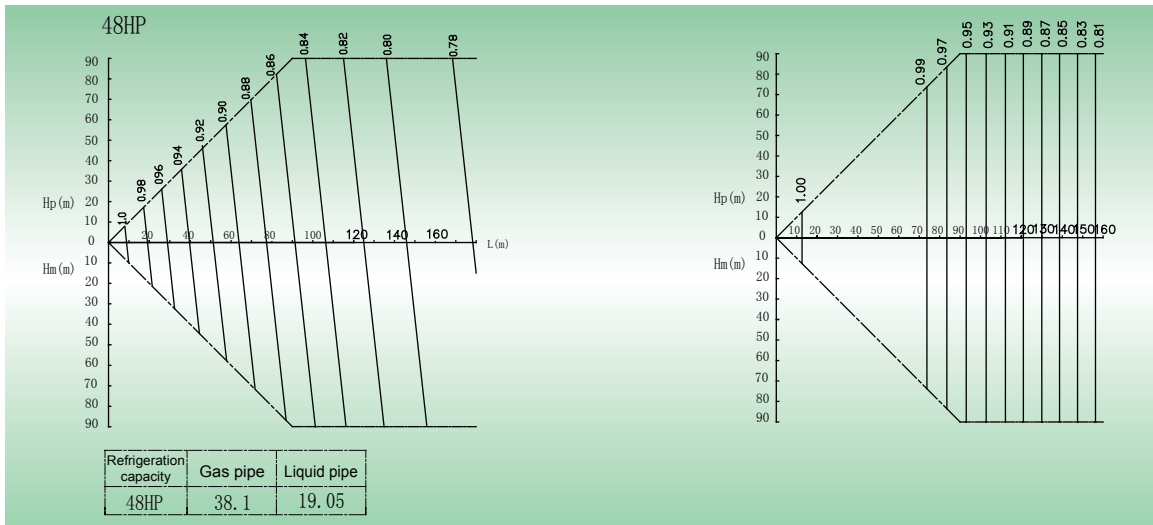
46HP

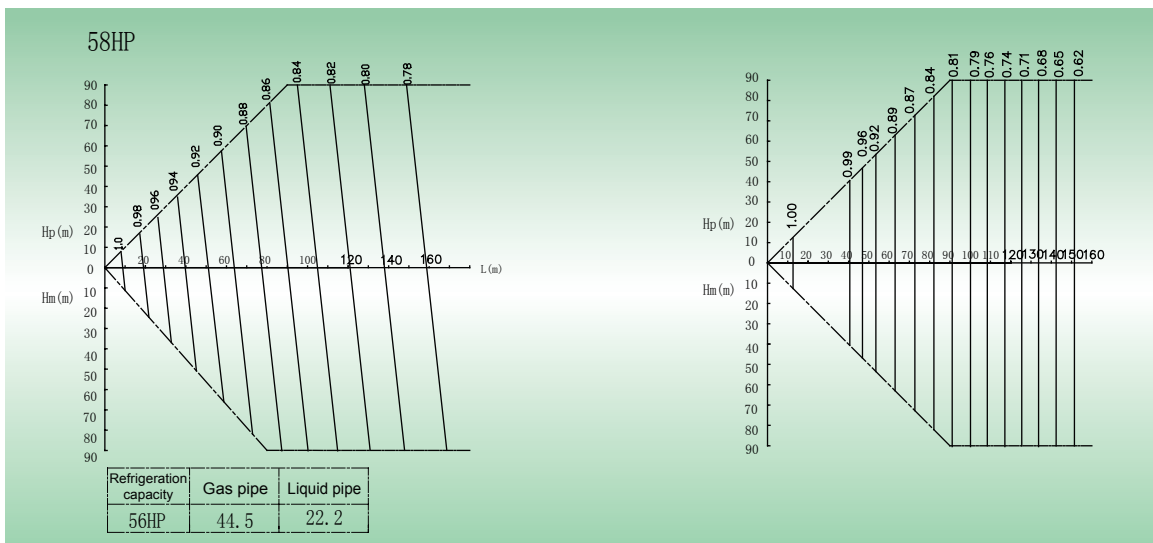
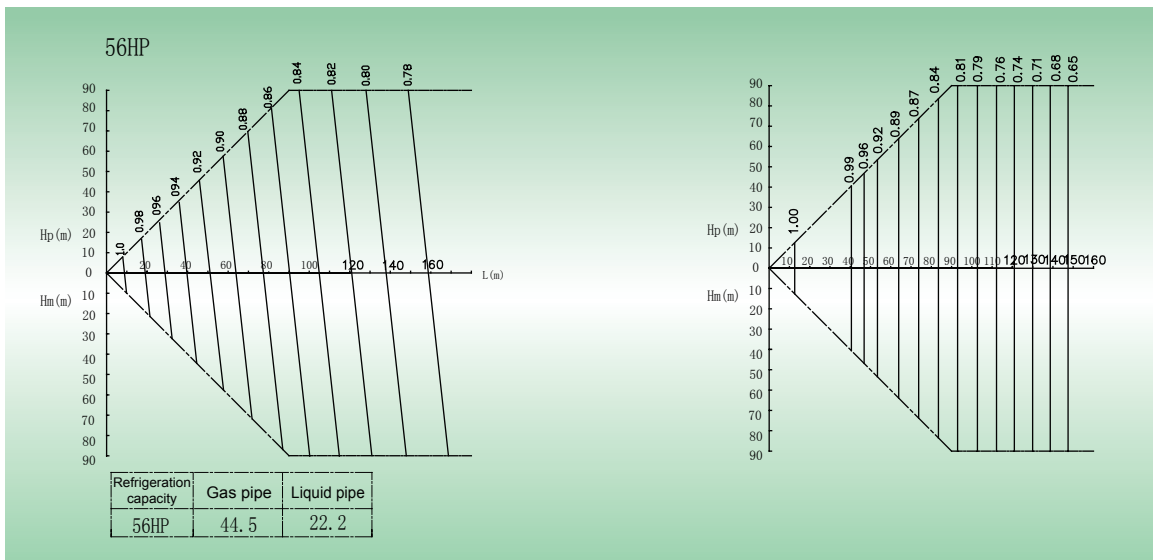
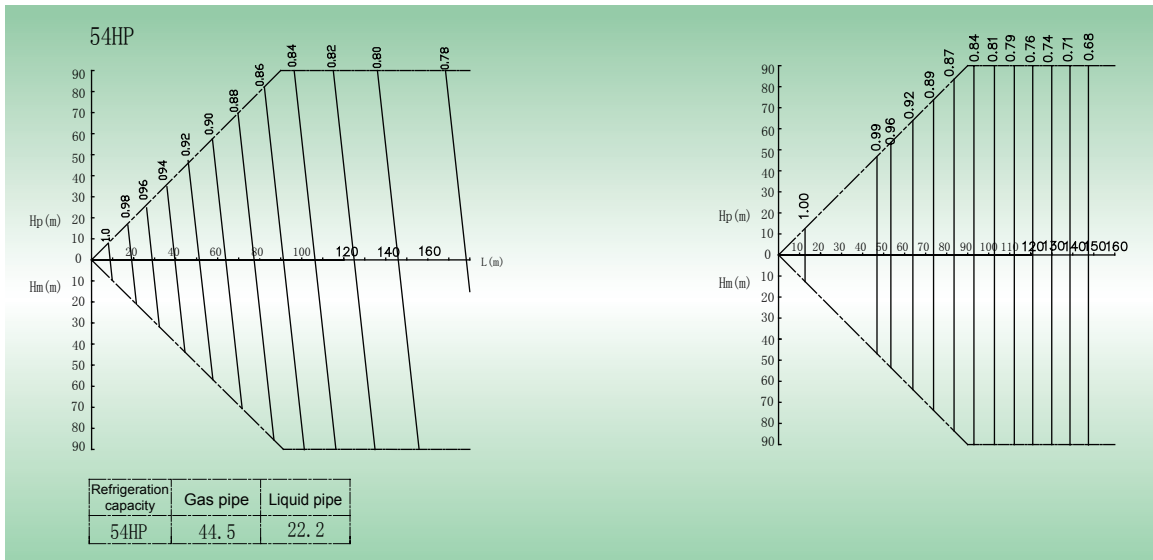


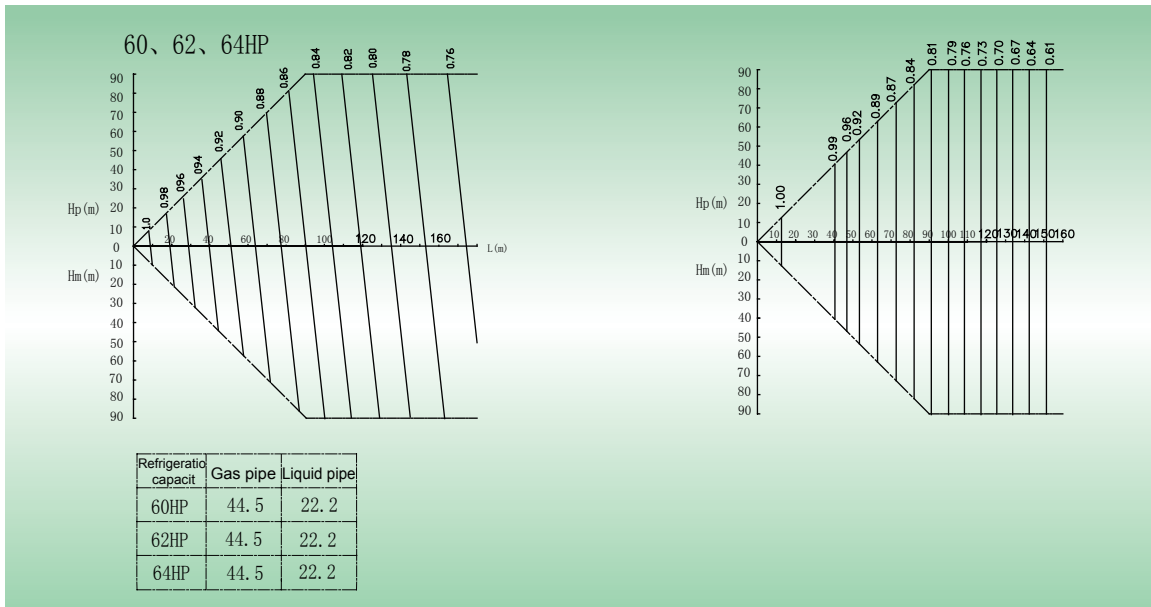
Refrigeration capacity	Gas pipe	Liquid pipe
46HP	38.1	19.05



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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

6.3 Frosting Correction Factors of Heating

When the outdoor environment meets certain conditions (temperature and humidity conditions), the unit may be frosted or defrosted. In this case, the heating capacity of the whole system will be reduced. Therefore, the frosting correction factor should also be calculated in heating load selection for the whole system.

The table below provides the frosting correction factors:

Air inlet dry bulb temperature (°C/RH85%) of the outdoor heat exchanger	-11	-9	-7	-5	-3	0	3	5	7
Frosting (defrosting) capacity correction factor of the whole system	1	0.98	0.96	0.94	0.88	0.8	0.84	0.9	1

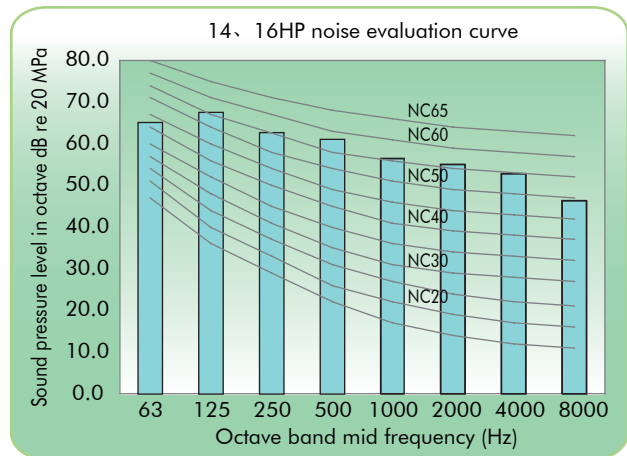
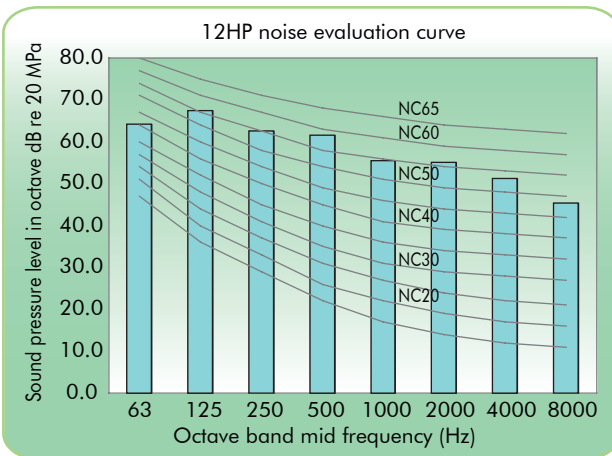
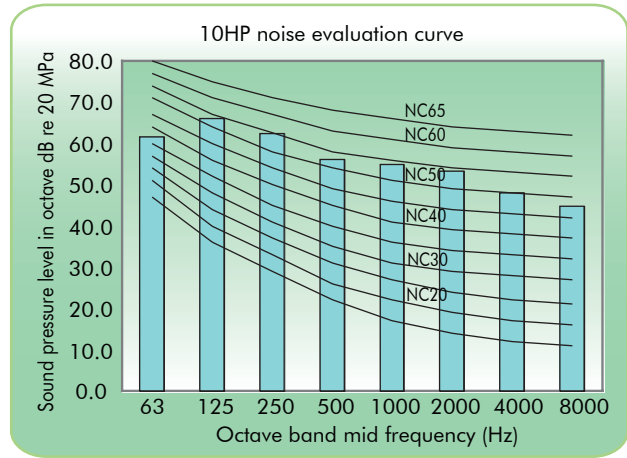
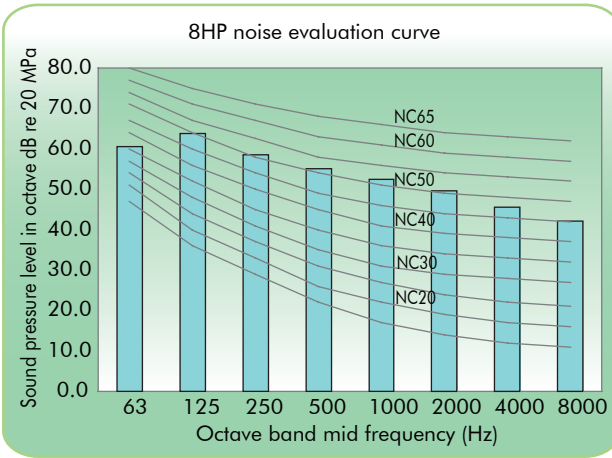
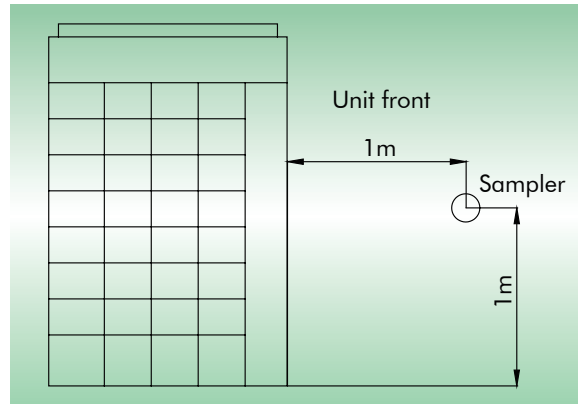
7 UNIT NOISE CURVES

7.1 Outdoor Unit Noise Curve

Noise test method:

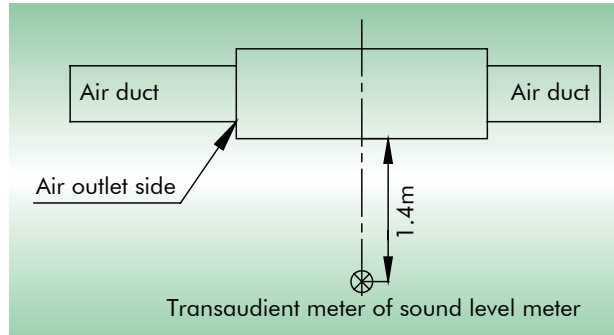
Test environment: semi-anechoic room; the noise level will be slightly higher due to change of the environment during actual operation.

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



7.2 Indoor Unit Noise Curves

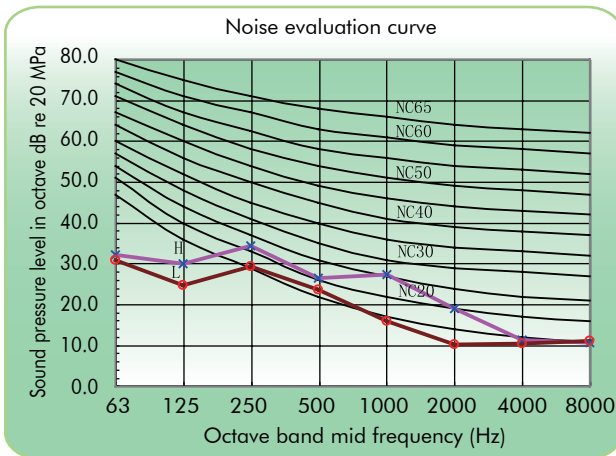
7.2.1 Low static pressure Duct type indoor unit GMV-ND**PLS/A-T



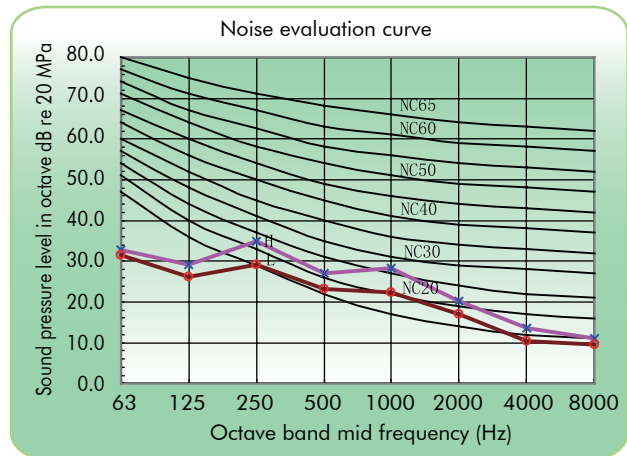
NOTES:

- The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.
- The noise level is measured under the standard test condition.
- The noise level is measured under the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

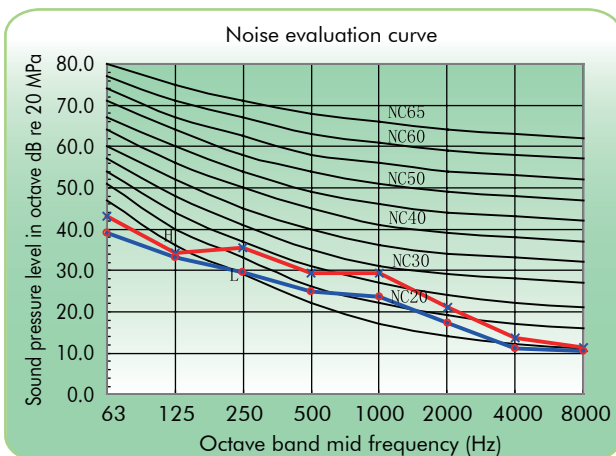
Model 22-28



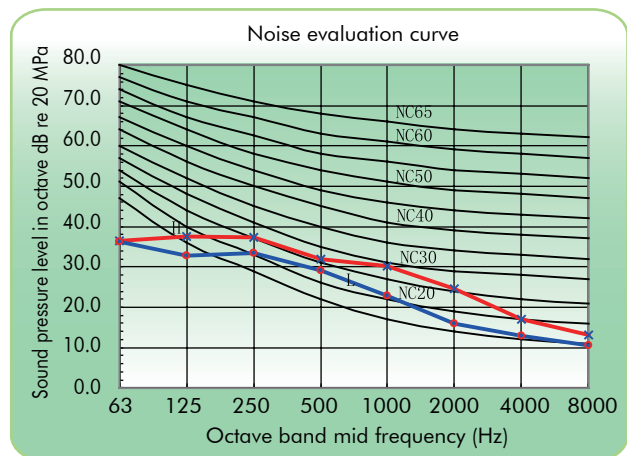
Model 32-36



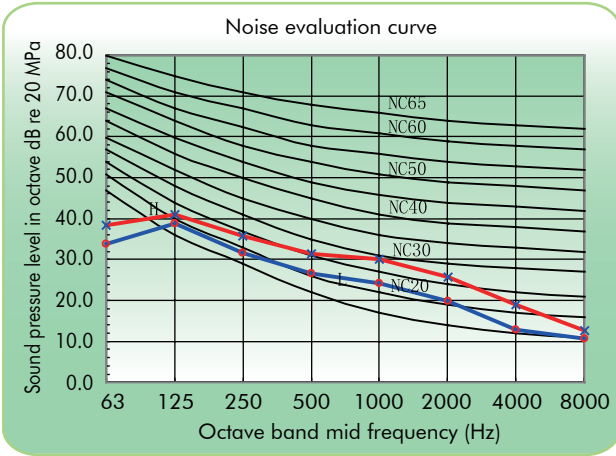
Model 40-50



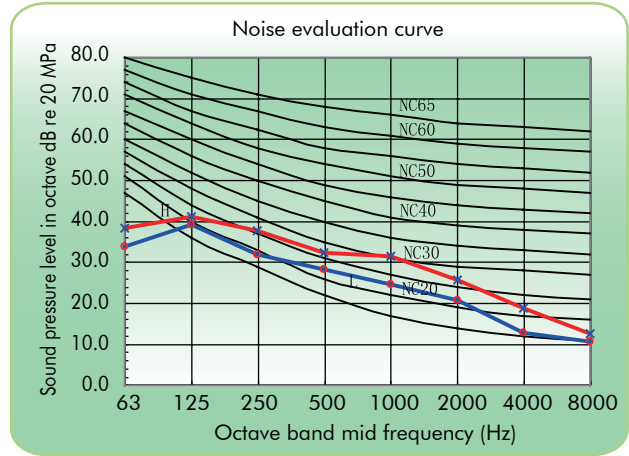
Model 56-63



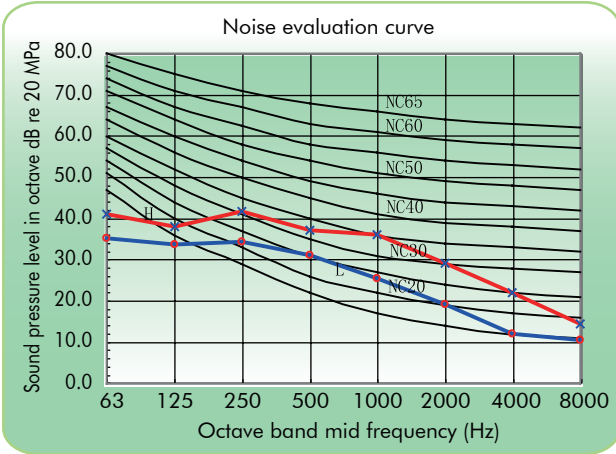
Model 71



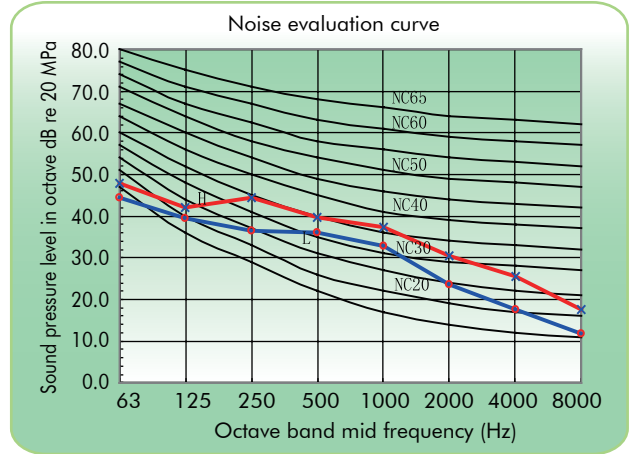
Model 80



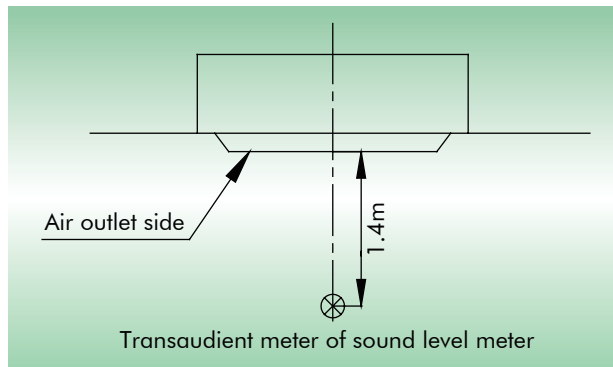
Model 90-112



Model 125-140



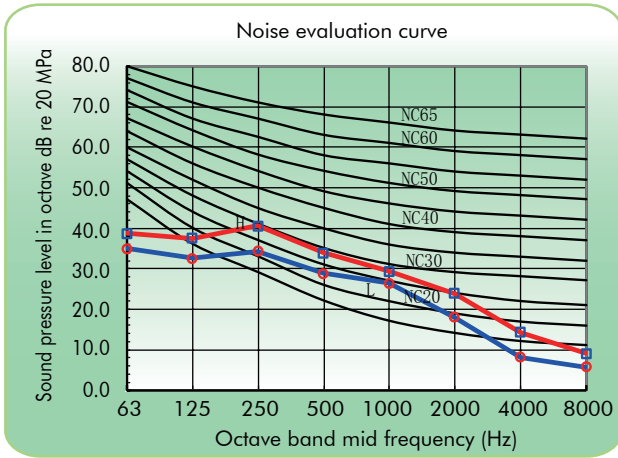
7.2.2 4-way Cassette type indoor unit GMV-ND**T/A-T



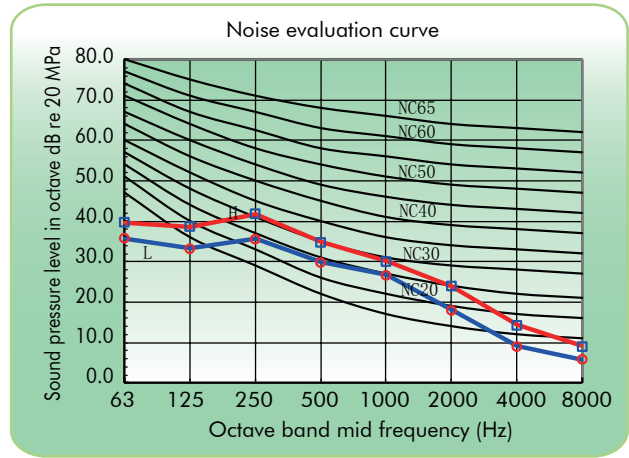
NOTES:

- a. The noise 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.

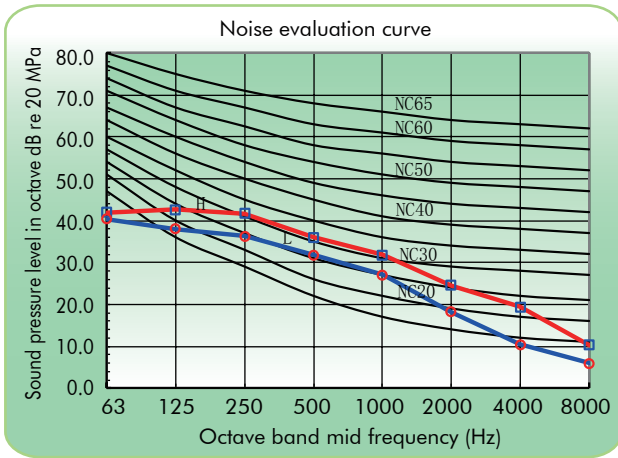
Model 28-50



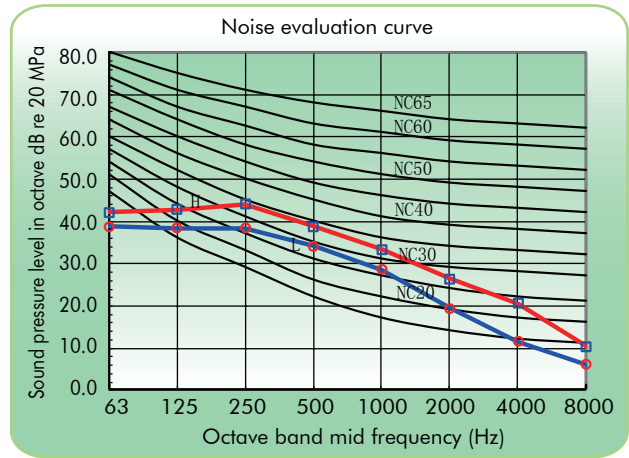
Model 56-63



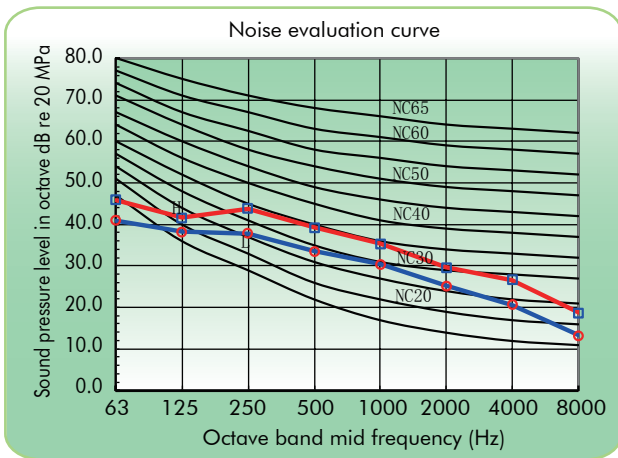
Model 71-80



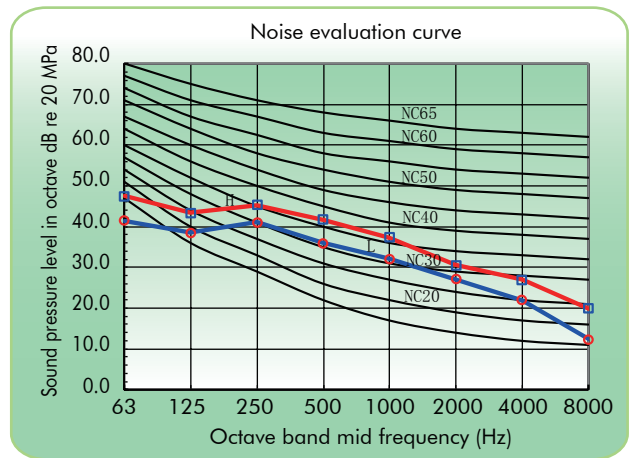
Model 90-100



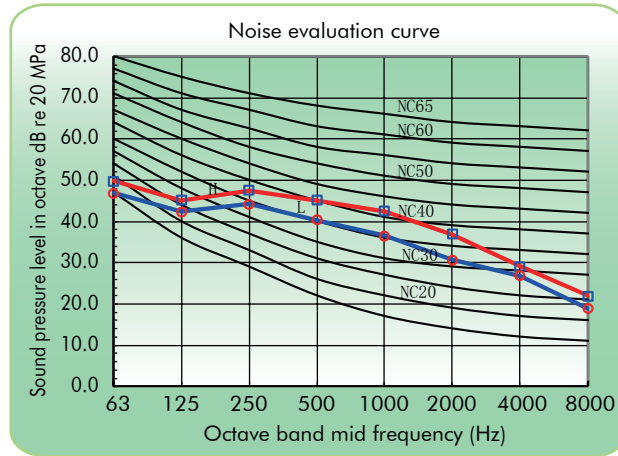
Model 112



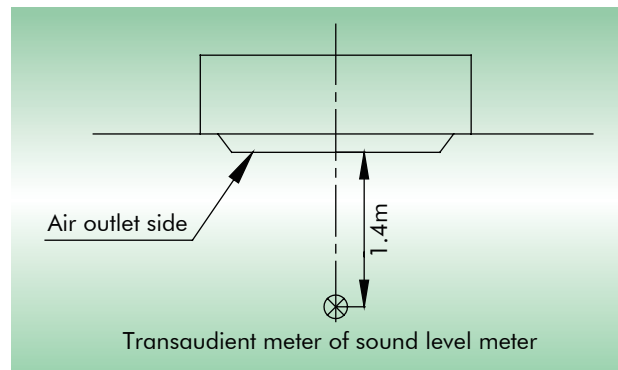
Model 125-140



Model 160



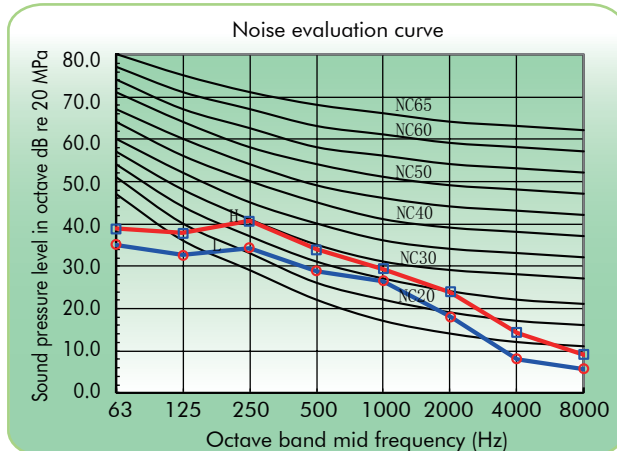
7.2.3 1-way Cassette type indoor unit GMV-ND**TD/A-T



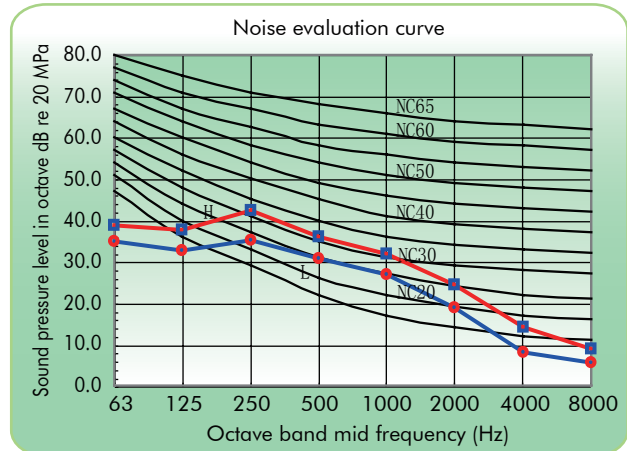
NOTES:

- a. The noise 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.

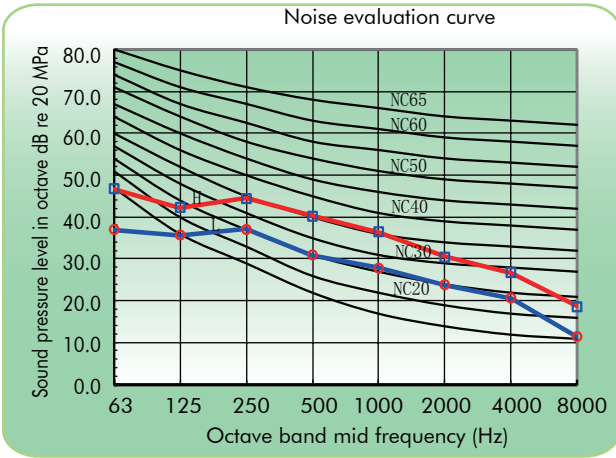
Model 28



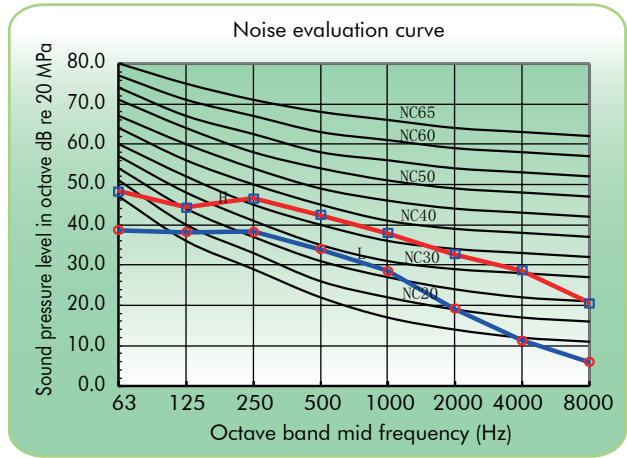
Model 36



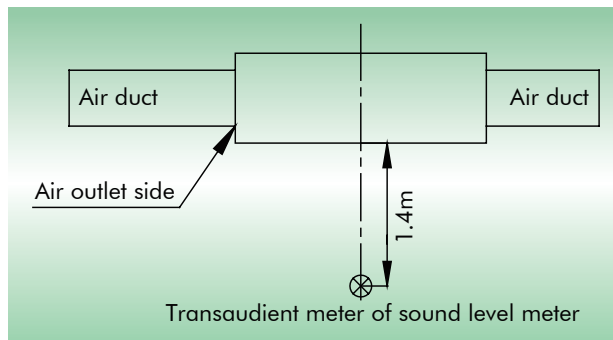
Model 45



Model 50



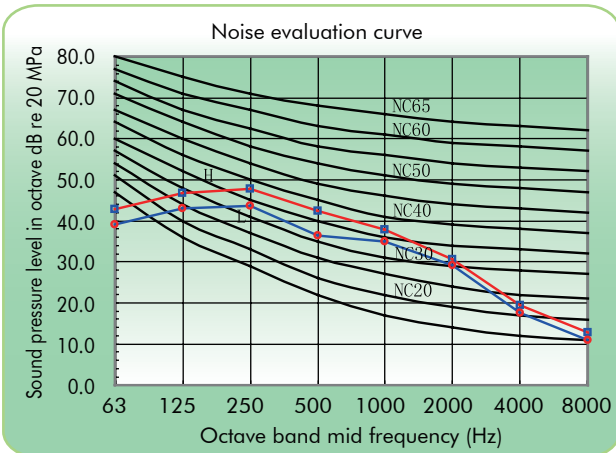
7.2.4 High static pressure Duct type indoor unit GMV-ND**PHS/A-T



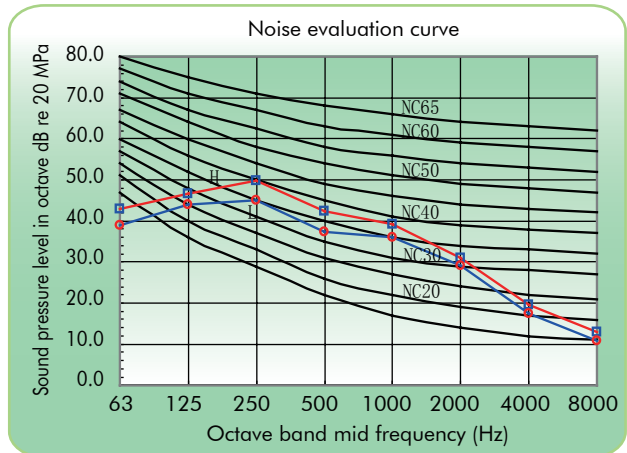
NOTES:

- a. The noise 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.
- c. The noise level is measured under the condition of rear air return.

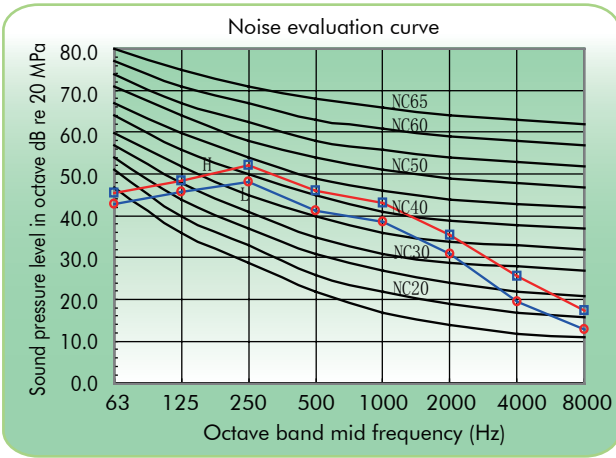
Model 56-63



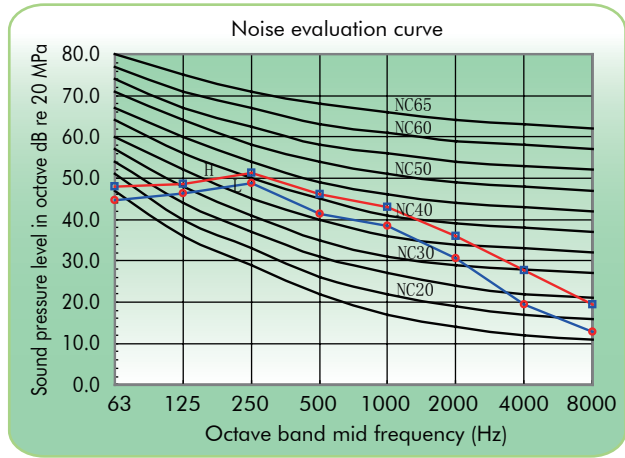
Model 71-80



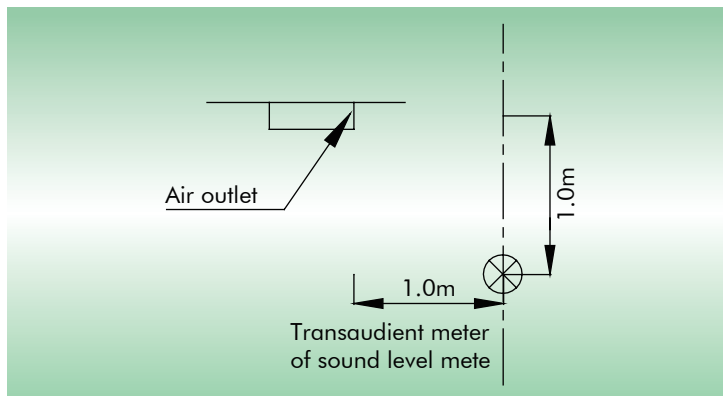
Model 90-112



Model 140



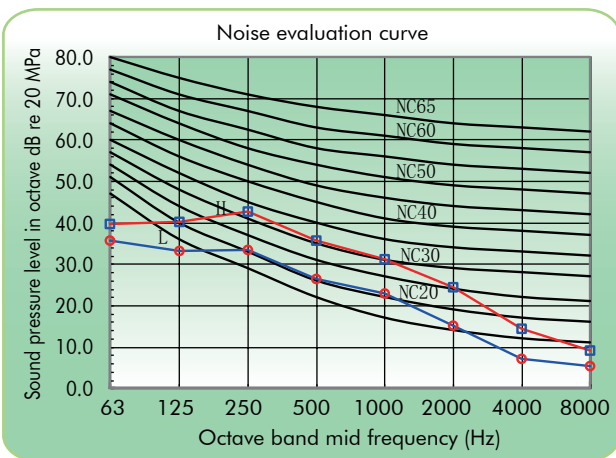
7.2.5 Floor Ceiling type indoor unit GMV-ND**ZD/A-T



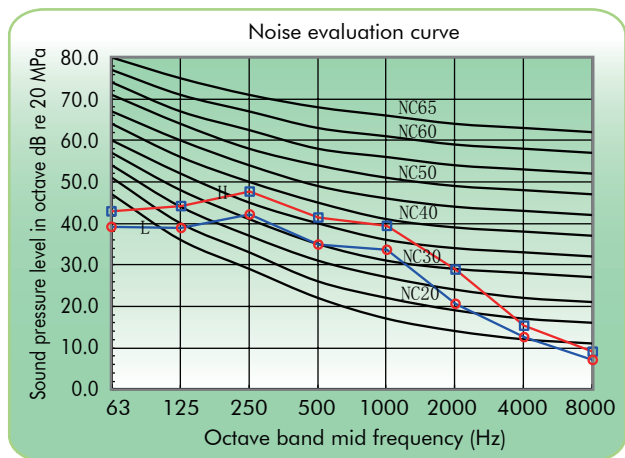
NOTES:

- a. The noise 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.
- c. The noise level is measured under the condition of ceiling installation.

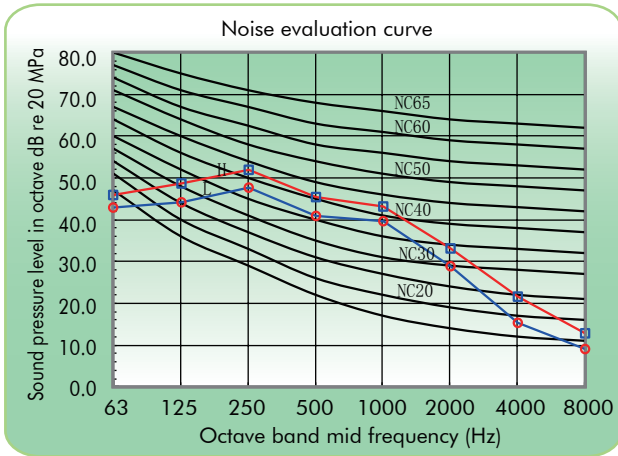
Model 28-36



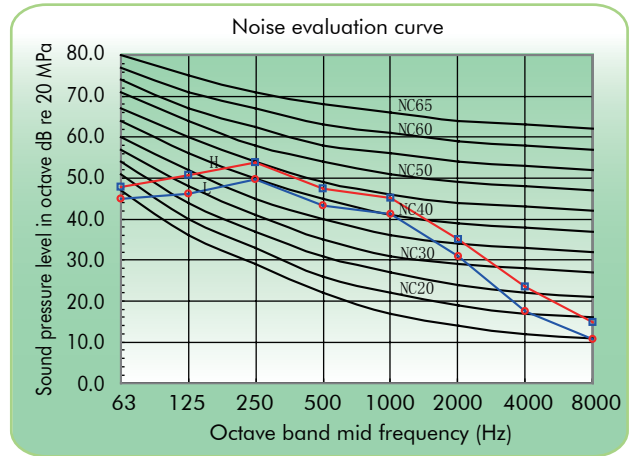
Model 50



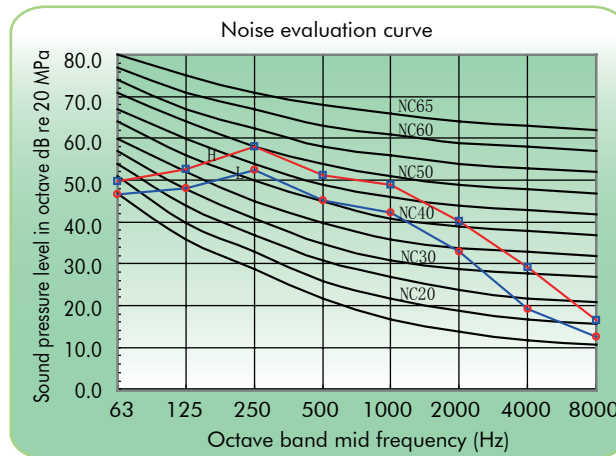
Model 63-71



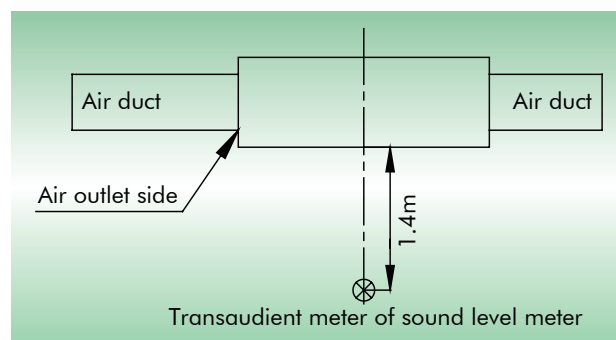
Model 90



Model 112-140



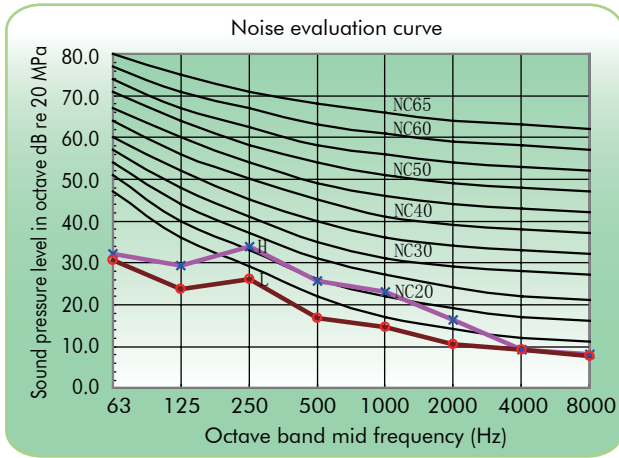
7.2.6 Slim Duct Type Indoor Unit GMV-ND**PL/B-T



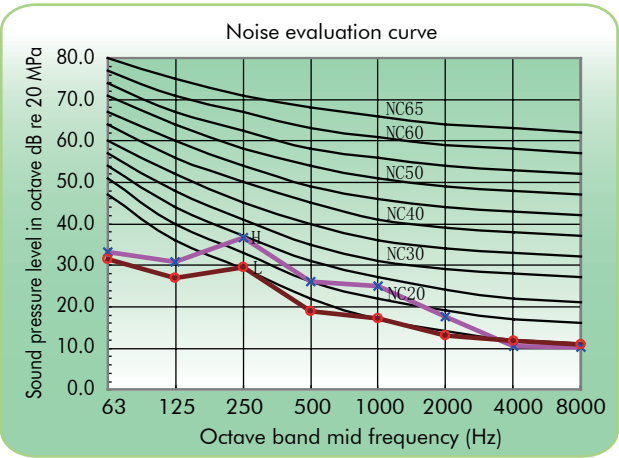
NOTES:

- The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.
- The noise level is measured under the standard test condition.
- The noise level is measured under the condition of rear air return. The noise level will be a little higher if the lower air return mode is adopted.

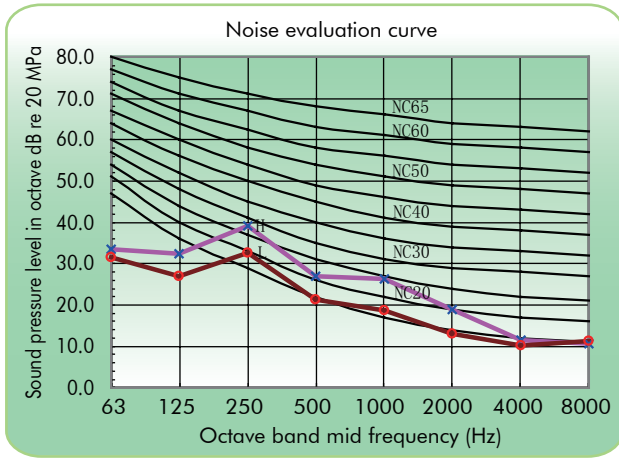
Model 22-28



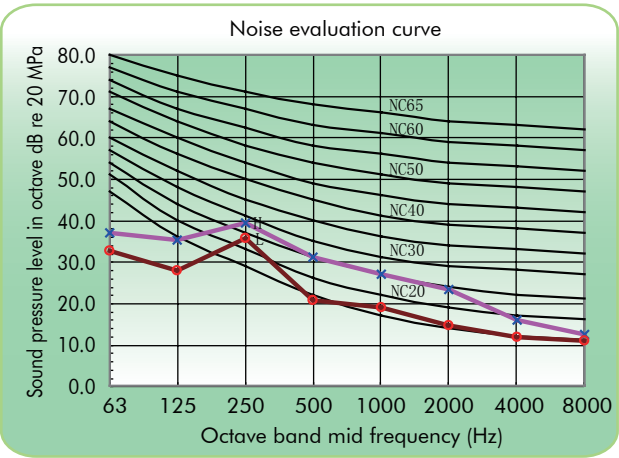
Model 32-36



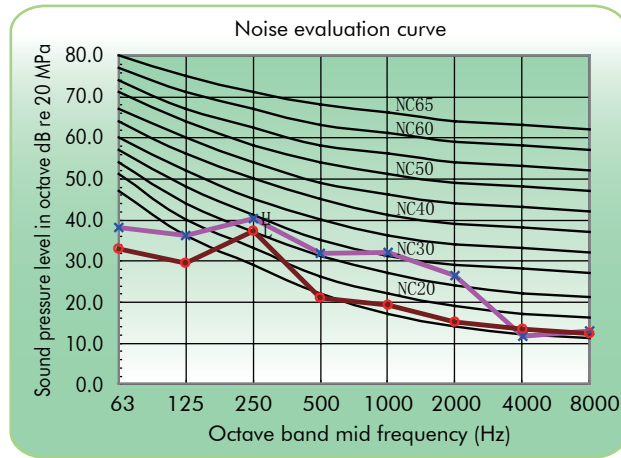
Model 40-45



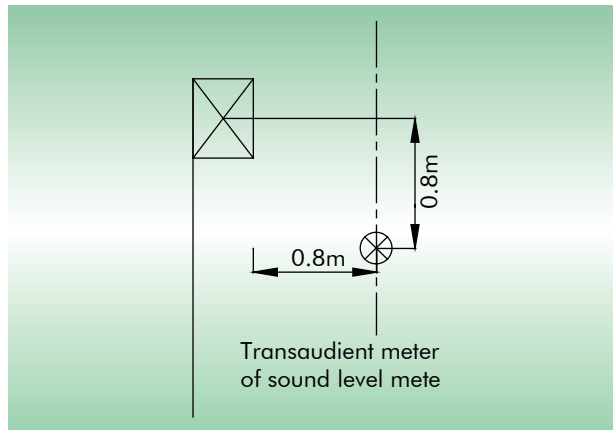
Model 50-63



Model 72



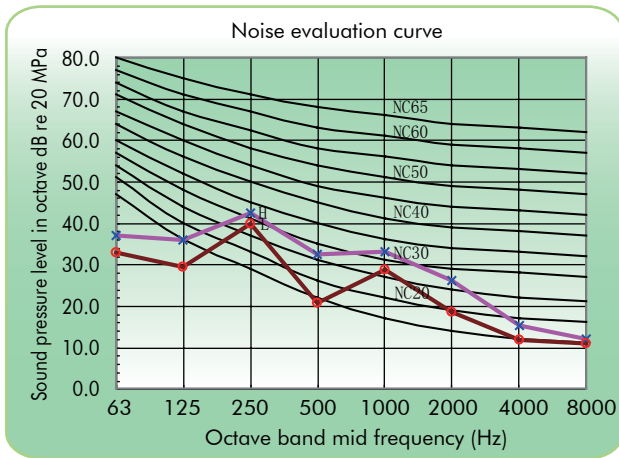
7.2.7 Wall Mounted type indoor GMV-N**G/A3A-K



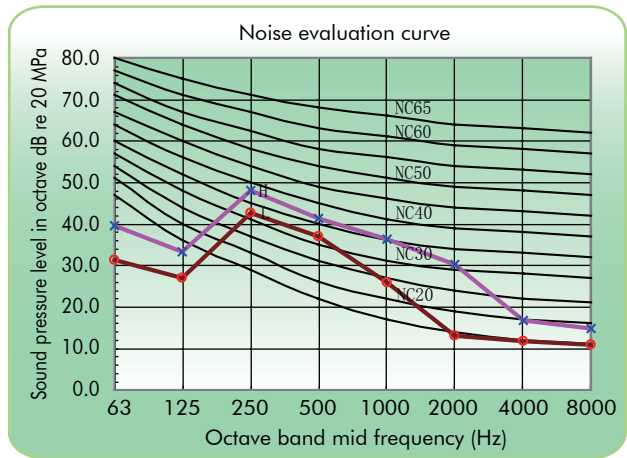
NOTES:

- The noise level is measured in the semi-anechoic room. It will be slightly higher due to change of the environment during actual operation.
- The noise level is measured under the standard test condition.

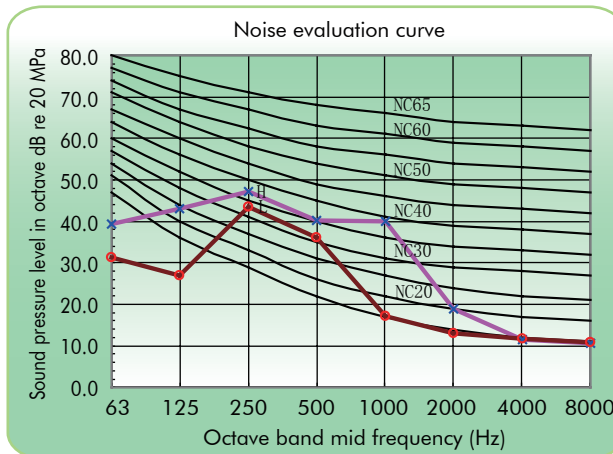
Model 22-28



Model 36-50



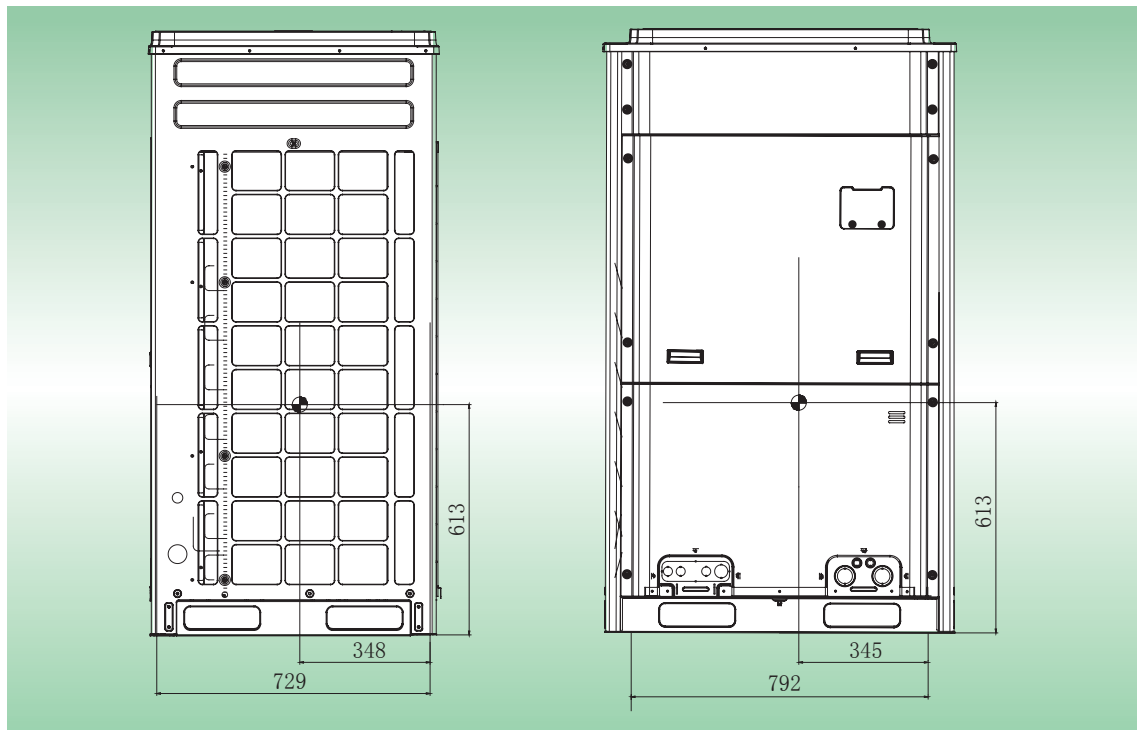
Model 56-71



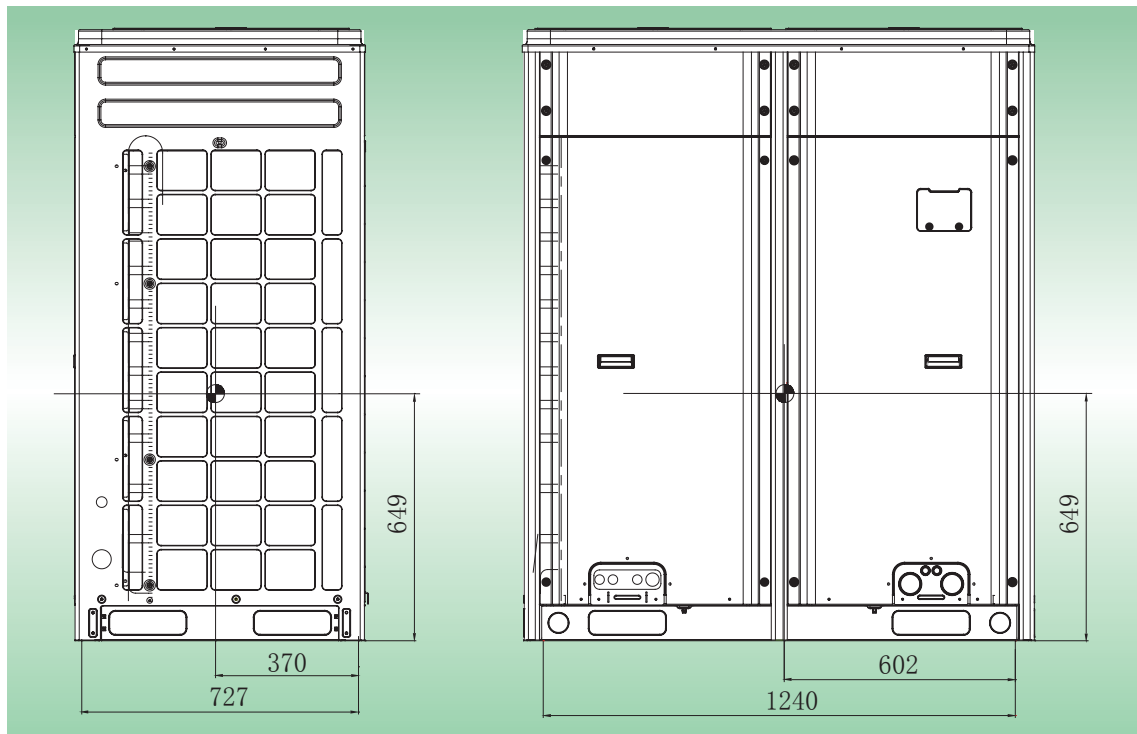
8 UNIT GRAVITY CENTER DIAGRAMS

Unit: mm

GMV-224WM/B-XGMV-280WM/B-X

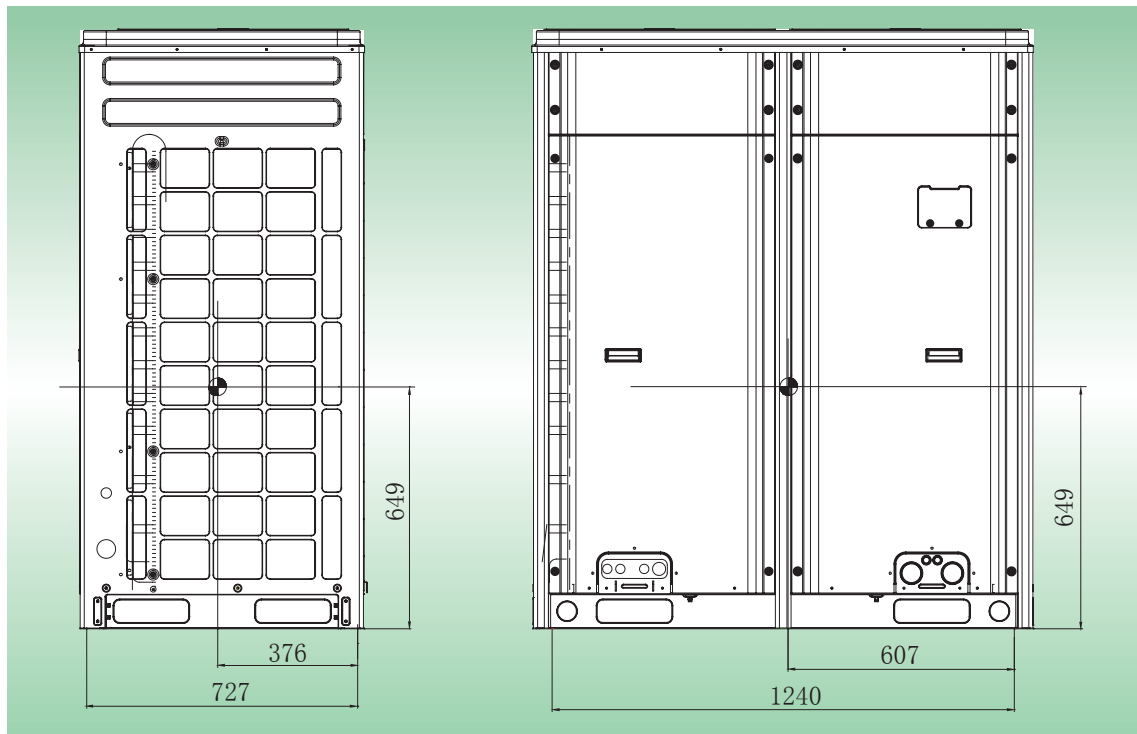


GMV-335WM/B-X



GMV5 DC Inverter VRF Units Technical Sales Guide

GMV-400WM/B-XGMV-450WM/B-X



9 UNIT INSTALLATION SPACE REQUIREMENTS

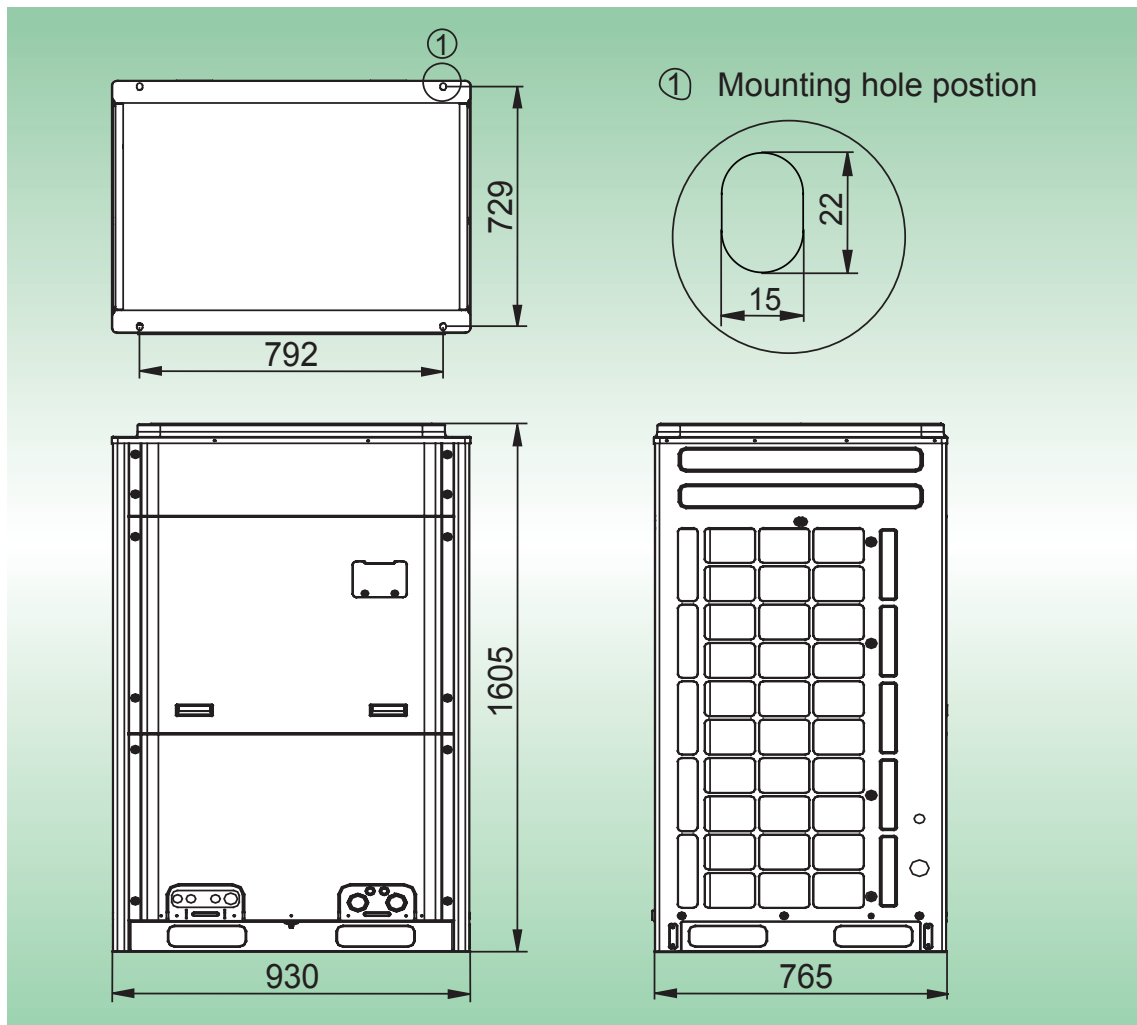
9.1 Selection of outdoor unit installation site

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.

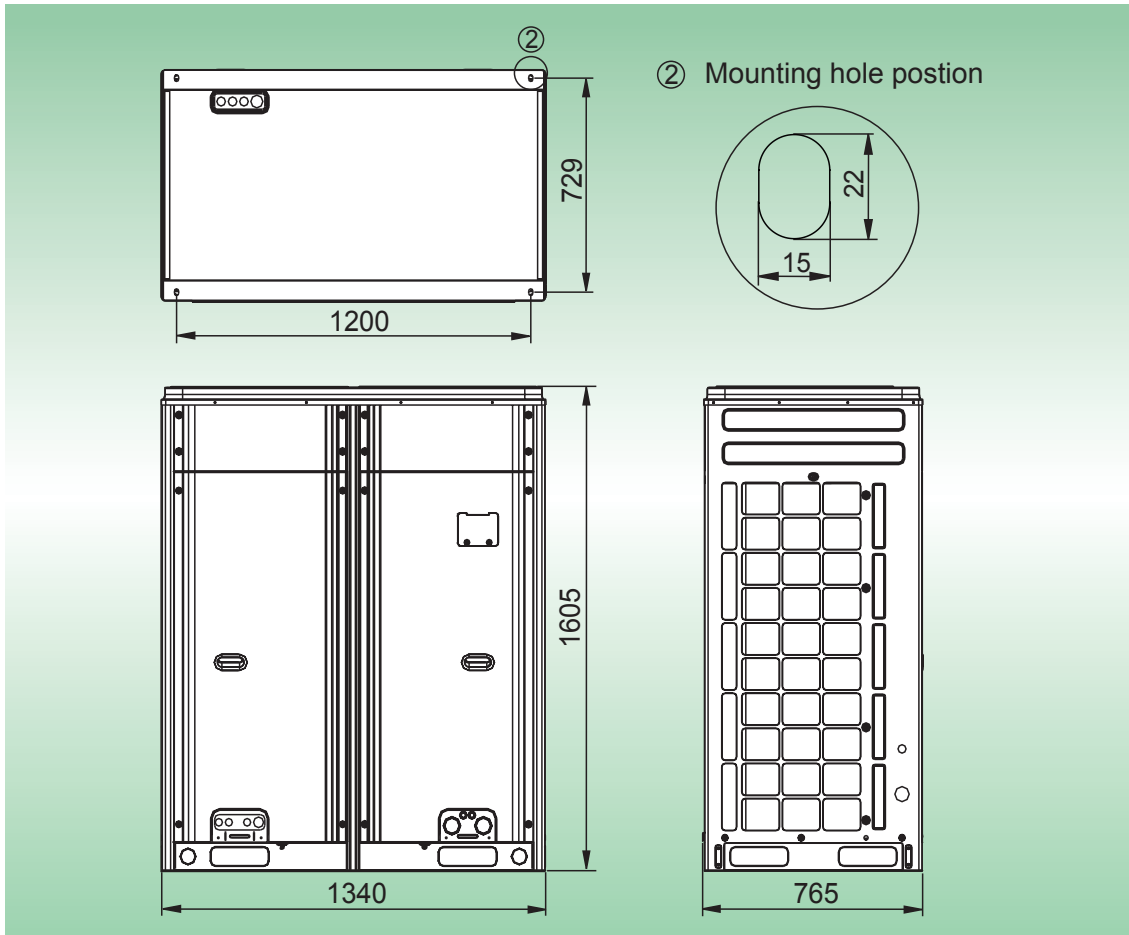
9.2 External dimensions and mounting hole dimensions of the outdoor unit

Unit: mm

External and installation dimensions of GMV-224WM/B-X, GMV-280WM/B-X, and GMV-335WM/B-X:



External and installation dimensions of GMV-400WM/B-X and GMV-450WM/B-X:

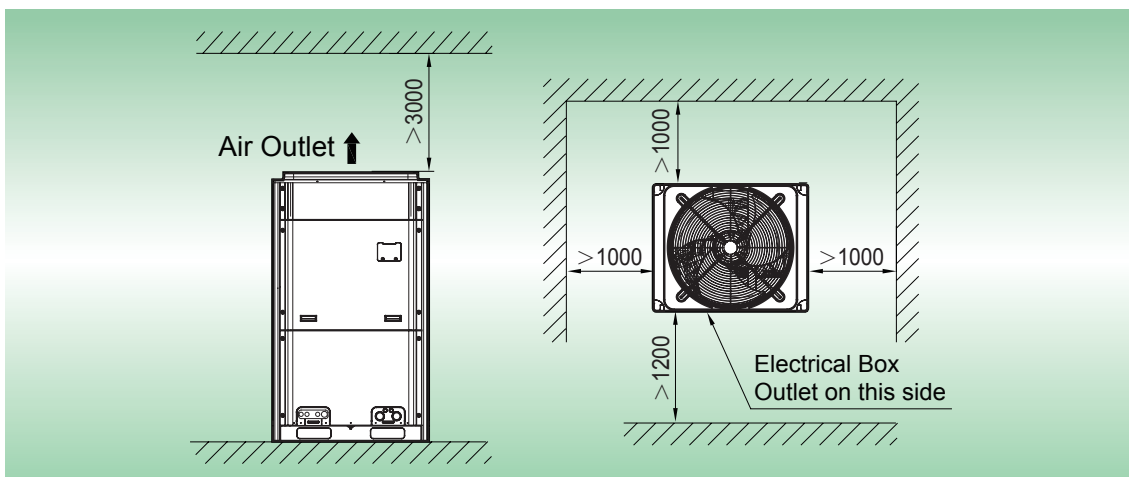


➔ 9.3 External unit installation space requirements

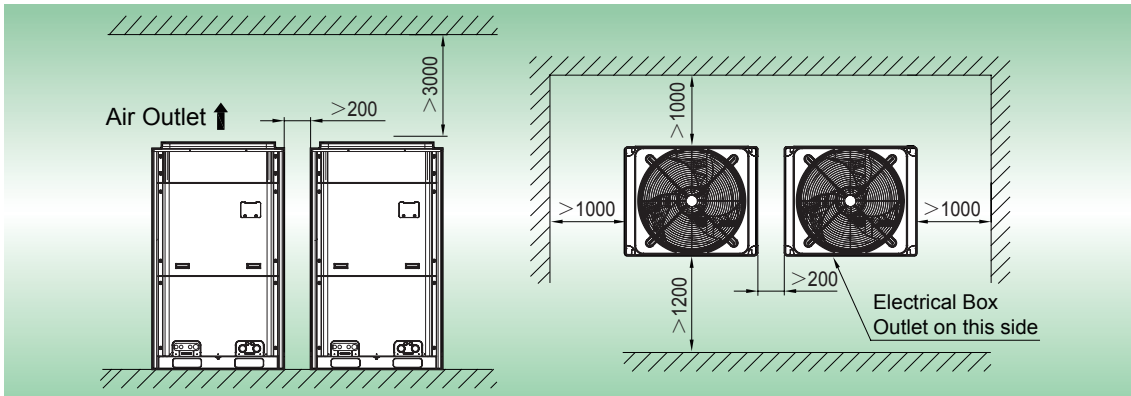
Unit: mm

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

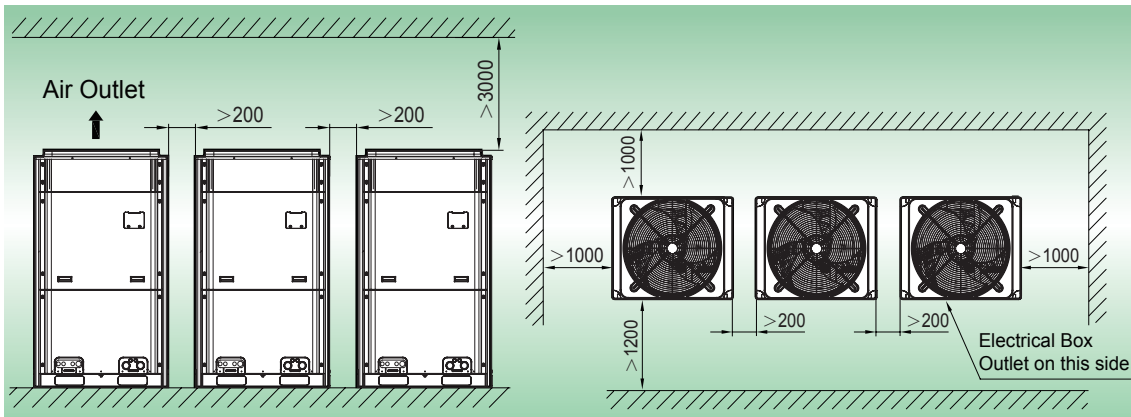
Installation space requirements for the single-module unit



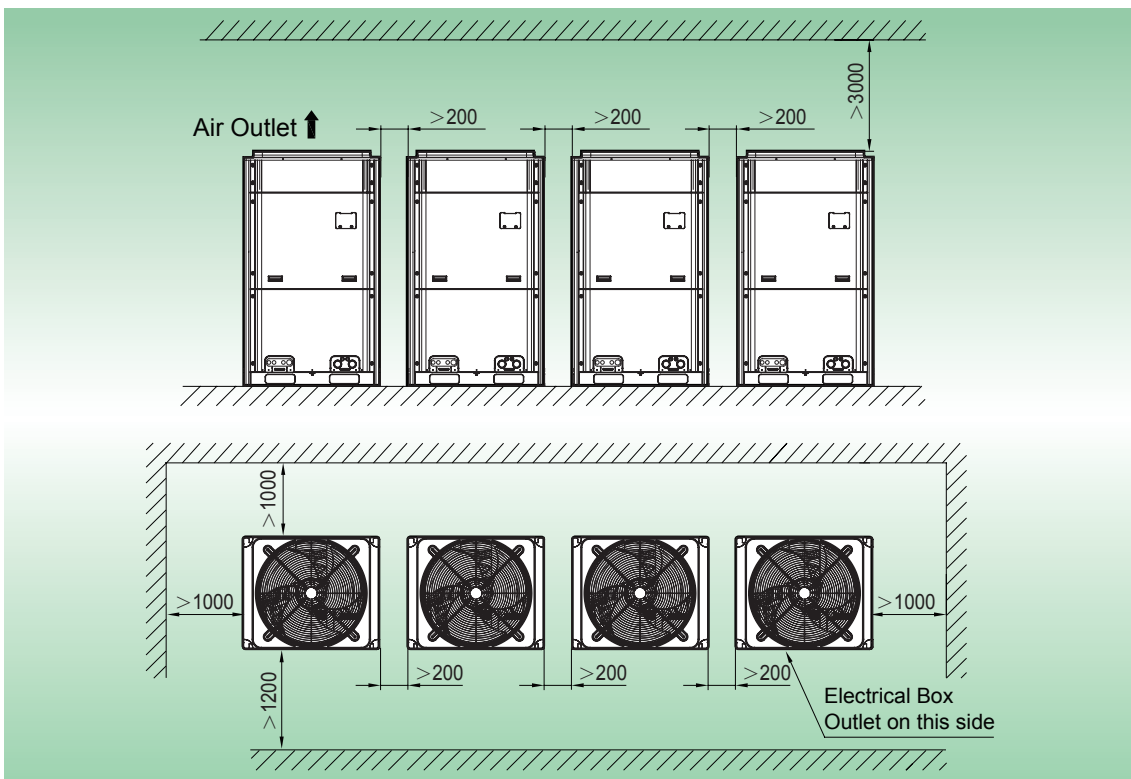
Installation space requirements for the dual-module unit



Installation space requirements for triple-module unit



Installation space requirements for quad-module unit



2) If there is a crown wall (such a barrier against wind) above the machine top, the machine top should be more than 3000 mm away from the crown wall in principle. If the spaces around the front, rear, left side, and right side of the machine are all open spaces, the machine top should be more than 1500 mm away from the crown wall, as shown in Figure (a). If the dimension is less than 1500 mm or the spaces around the machine are not open spaces, it is required to use a return duct to keep smooth ventilation, as shown in Figure (b).

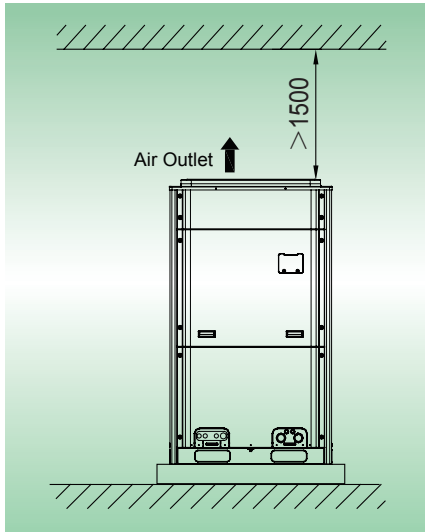


Figure (a)

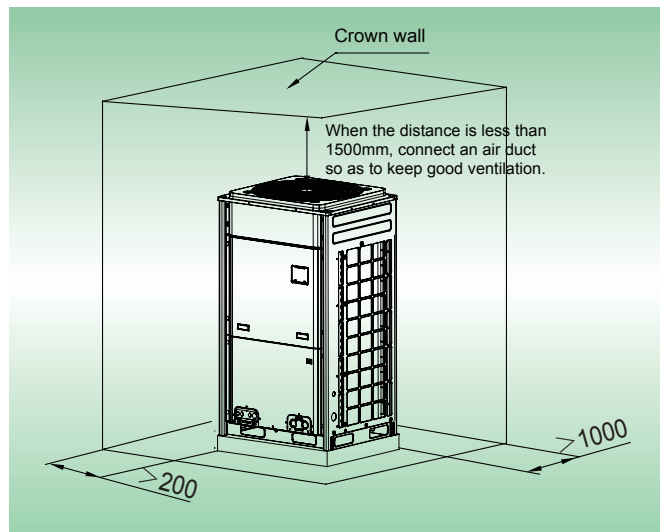
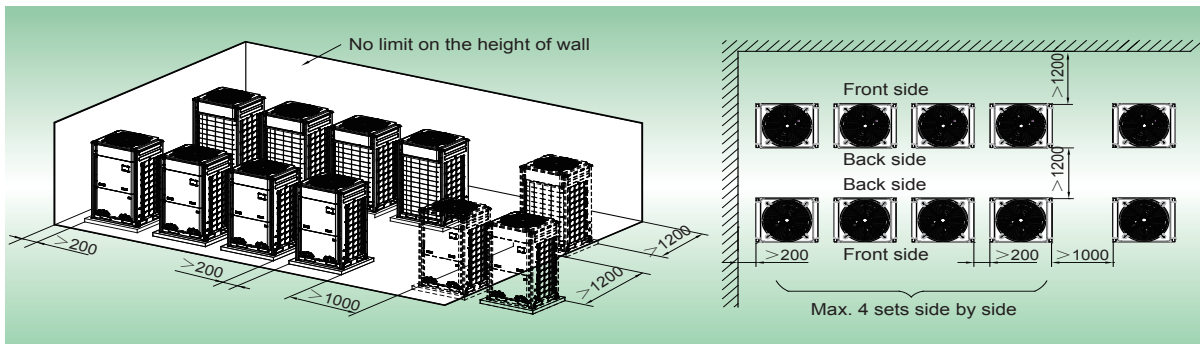
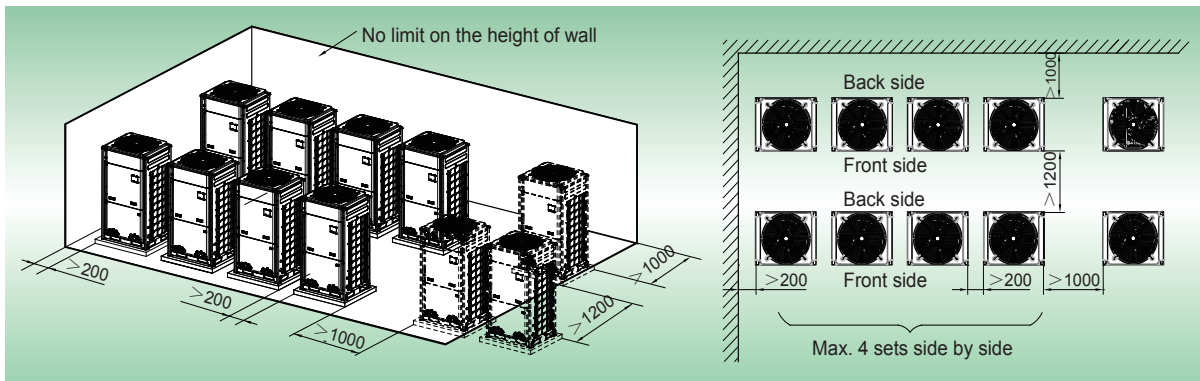


Figure (b)

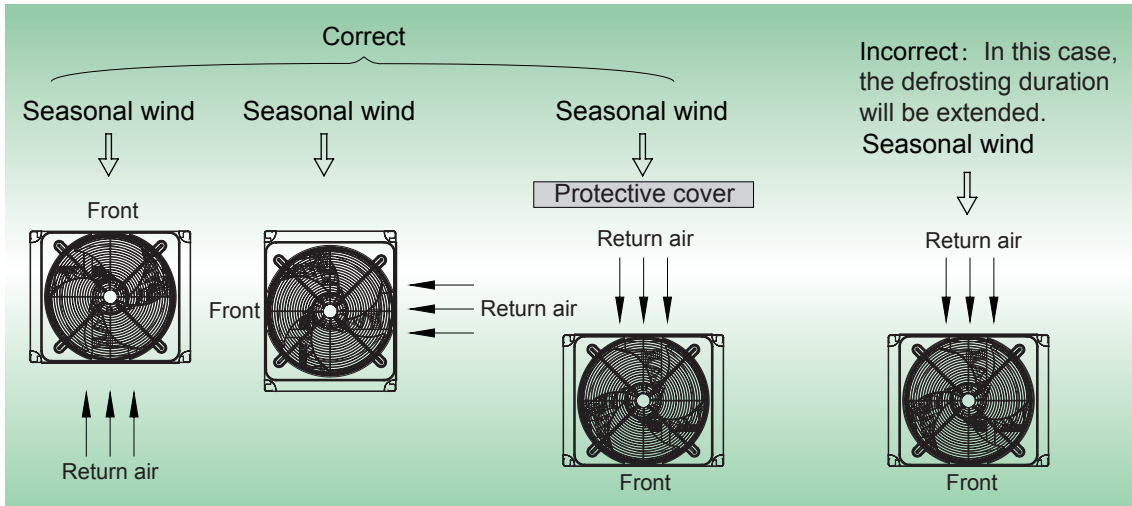
Installation space requirements of multiple outdoor units

To ensure smooth ventilation, an open space must be ensured above the unit top, and there is no barrier against wind.

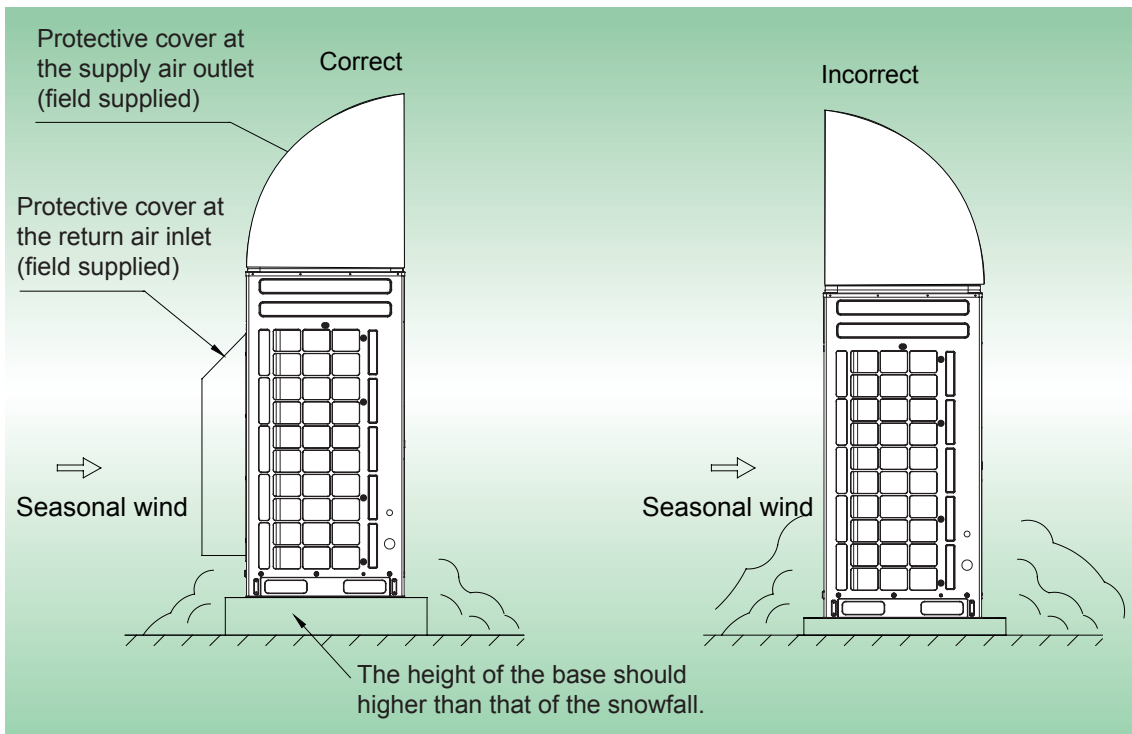
If there is an open space at the front side and left side (or right side) of the outdoor unit, the units should be installed towards the same direction or reverse direction.



3) Considering the seasonal wind in outdoor unit installation



4) Considering snow in outdoor unit installation



5) When the outdoor unit is installed on equipment, an air exhaust pipe should be connected, the aperture opening ratio of the louver cannot be smaller than 80%, and the included angle between the louver and the horizontal plane should be smaller than 20°.

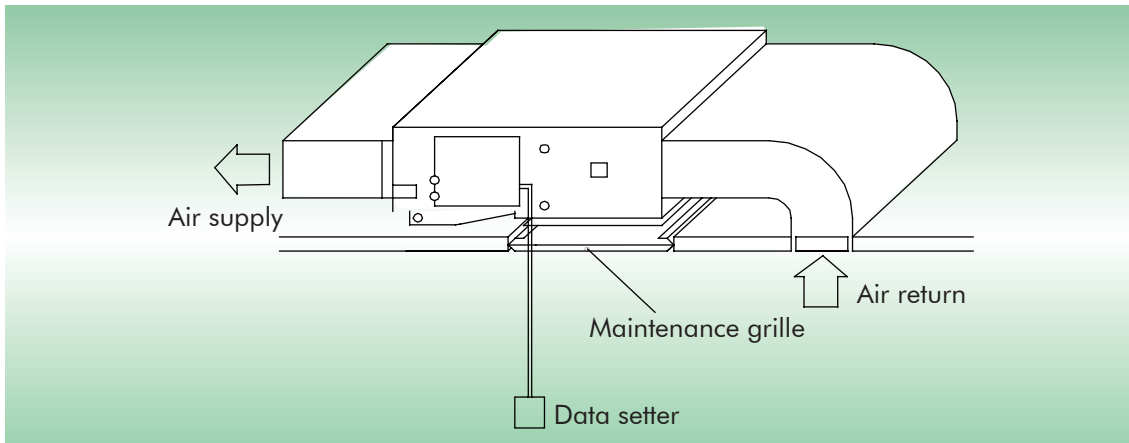
➔ 9.4 Installation space requirement for indoor unit

9.4.1 Precautions on the indoor unit design

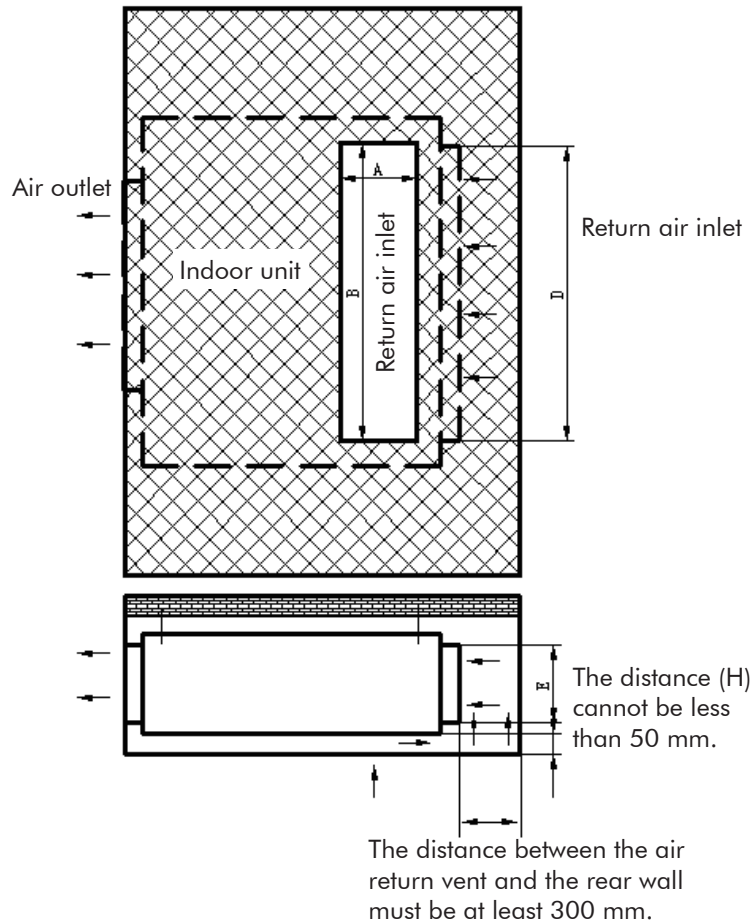
The following aspects must be specially noted in consideration of the indoor unit location:

- 1) The location should satisfy the optimal airflow organization for air conditioner in the actual project, and implement the most uniform distribution of temperature.

- 2) Avoid mixed use of air ducts for air supply and air return in different air conditioning areas.
- 3) When the indoor unit in the air supply mode of air duct is selected, it is preferred to adopt the rear air return mode for the unit to further efficiently reduce the air return noise of the unit.



- 4) In locating, consider whether air return of the unit will be affected. For the indoor unit in the air supply mode of air duct, the air return frame must be more than 300 mm away from the back wall (rear air return mode) or other barriers.
- 5) If the unit uses the rear air return mode and the ceiling uses the air return mode directly below the unit, the distance between the unit bottom and the ceiling must be over 50 mm. Meanwhile, the effective circulation area between the unit bottom and the ceiling cannot be smaller than the air return vent area of the unit. For example:



Air return area of the unit: $S1 = D \times E$

Air return vent circumference of the ceiling: $L = 2 \times (A+B)$

Effective air return area of the ceiling: $S2 = L \times H$

$S2$ cannot be smaller than $S1$. The distance H between the ceiling and the unit cannot be smaller than 50 mm.

6) No barrier blocking air flow should exist at the air inlet or outlet of the indoor unit. The indoor unit should be installed at a position 2.3 m higher than the floor.

7) For the indoor unit with the rated refrigerating capacity greater than 5.6 kW, an air supply duct should be additionally added, and the air duct and air outlet should be set properly to reduce noises.

8) A sufficient maintenance space should be reserved in locating the unit.

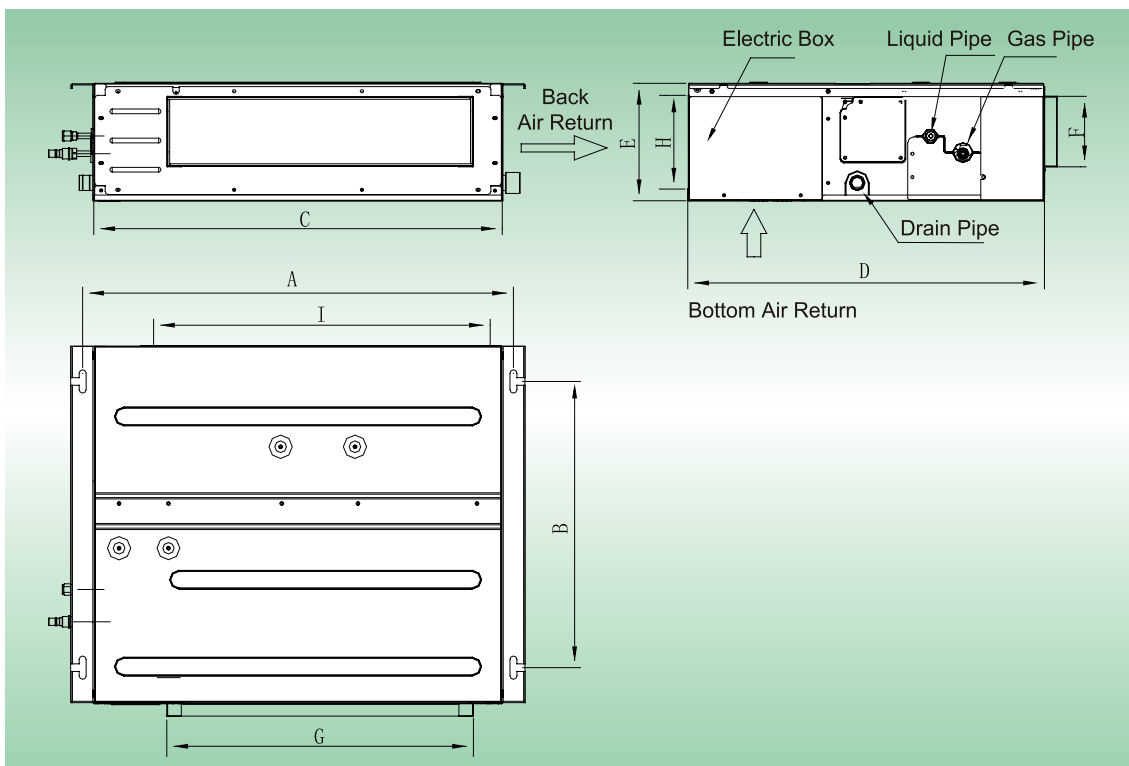
9.4.2 Different installation space requirements for various of indoor units

1) Air Duct Unit Series

(a) Dimensions

a) Low Static Pressure Duct Type Unit

The figure below is applicable to the model whose refrigerating capacity range is 2.2 kW to 6.3kW.

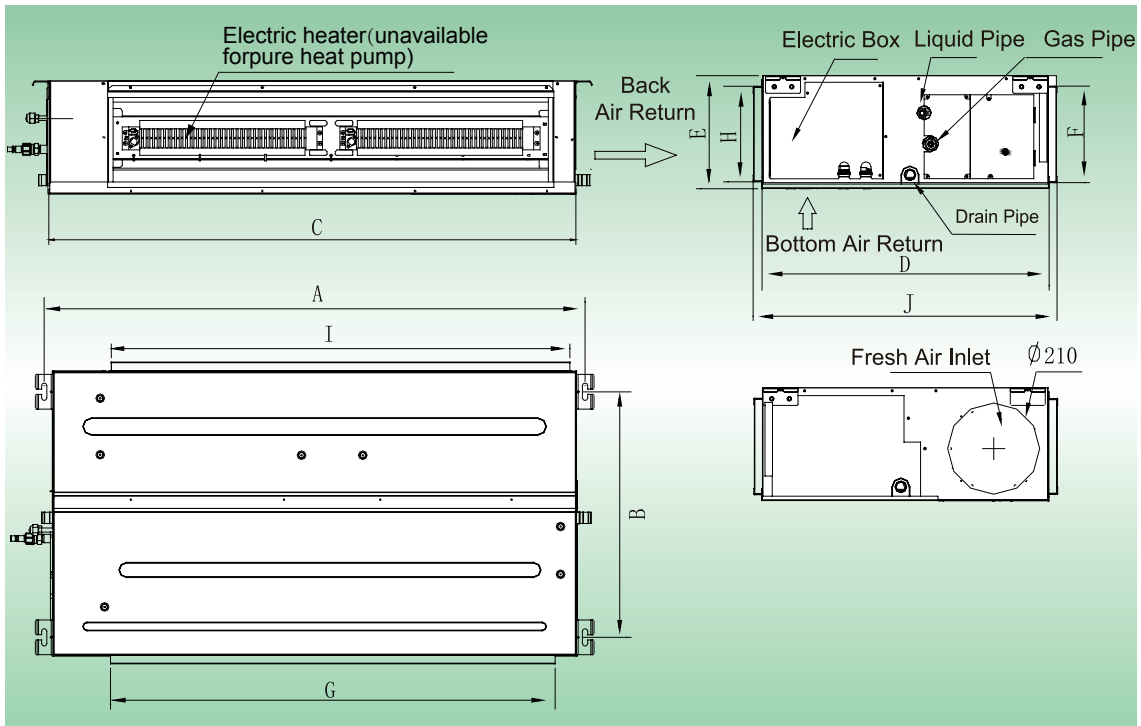


The table below lists the detailed dimensions.

Unit: mm

Model	Item	A	B	C	D	E	F	G	H	I
GMV-ND22PLS/A-T		742	491	700	615	200	121	528	161	580
GMV-ND25PLS/A-T										
GMV-ND28PLS/A-T										
GMV-ND32PLS/A-T										
GMV-ND36PLS/A-T										
GMV-ND40PLS/A-T		942	491	900	615	200	121	728	161	780
GMV-ND45PLS/A-T										
GMV-ND50PLS/A-T										
GMV-ND56PLS/A-T		1142	491	1100	615	200	121	928	161	980
GMV-ND63PLS/A-T										

The figure below is applicable to the model whose refrigerating capacity range is 7.1 kW to 14.0 kW.



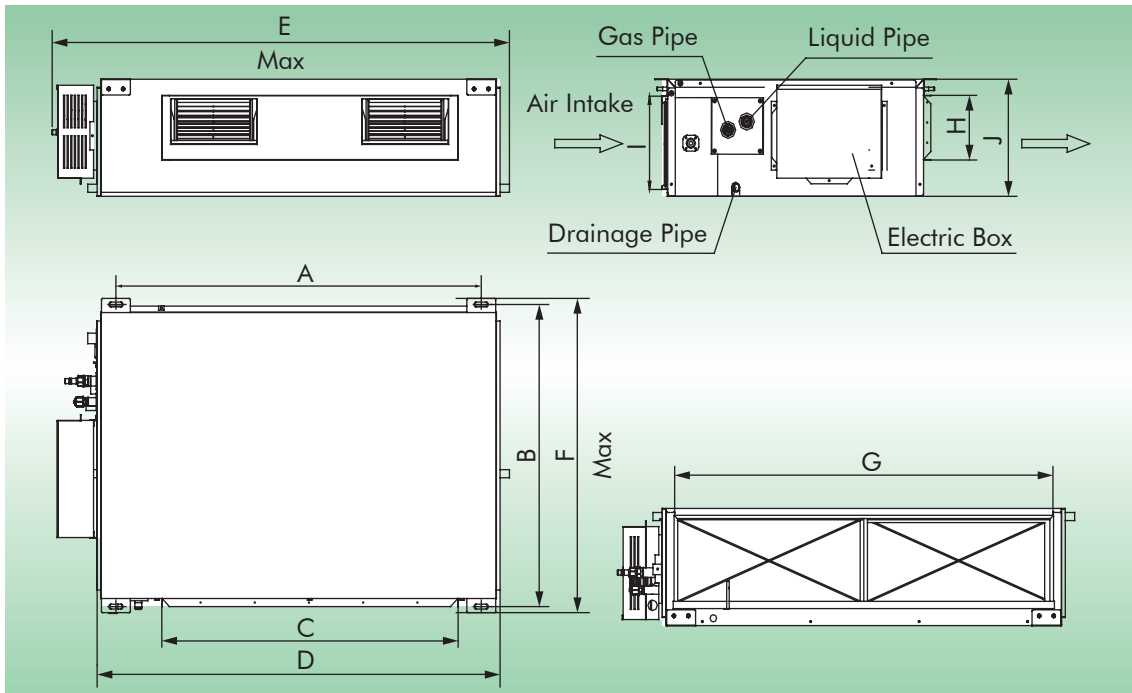
The table below lists the detailed dimensions.

Unit: mm

Model \ Item	A	B	C	D	E	F	G	H	I	J
GMV-ND71PLS/A-T GMV-ND80PLS/A-T	1236	565	1200	655	260	222	1016	220	1050	695
GMV-ND90PLS/A-T GMV-ND100PLS/A-T GMV-ND112PLS/A-T	1379	565	1340	655	260	207	1153	220	1188	716
GMV-ND125PLS/A-T GMV-ND140PLS/A-T	1379	565	1340	655	260	207	1153	220	1188	716

b) High Static Pressure Duct Type Series

The figure below is applicable to the model whose refrigerating capacity range is 5.6 kW to 14.0 kW.

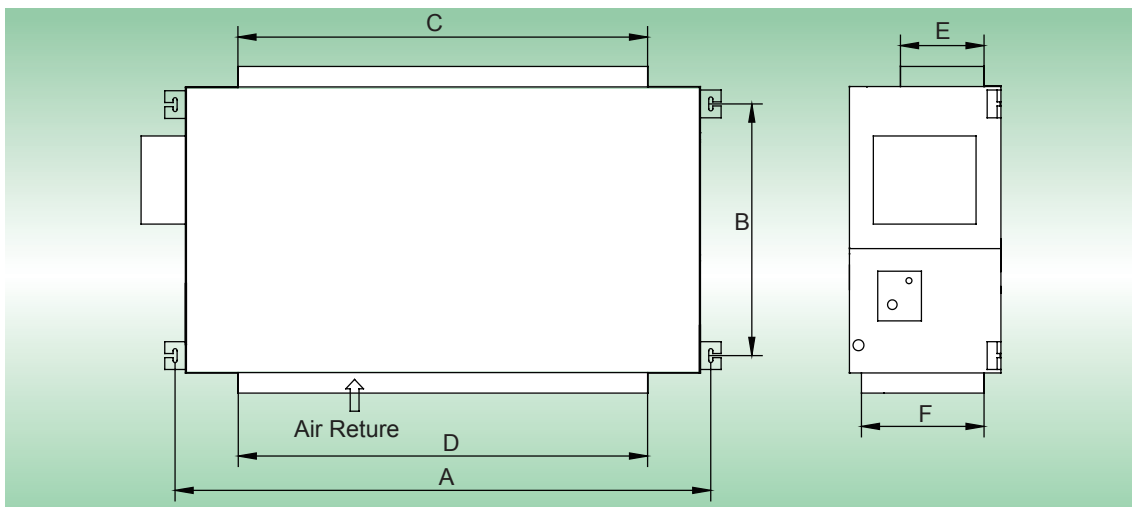


The table below lists the detailed dimensions.

Unit: mm

Model \ Item	A	B	C	D	E	F	G	H	I	J
GMV-ND56PHS/A-T	1101	517	820	1159	1271	558	1002	160	235	268
GMV-ND63PHS/A-T	1101	517	820	1159	1271	558	1002	160	235	268
GMV-ND71PHS/A-T	1101	517	820	1159	1271	558	1002	160	235	268
GMV-ND80PHS/A-T	1101	517	820	1159	1271	558	1002	160	235	268
GMV-ND90PHS/A-T	1011	748	820	1115	1229	775	979	160	231	290
GMV-ND100PHS/A-T	1011	748	820	1115	1229	775	979	160	231	290
GMV-ND112PHS/A-T	1011	748	820	1115	1229	775	979	160	231	290
GMV-ND125PHS/A-T	1011	748	820	1115	1229	775	979	160	231	290
GMV-ND140PHS/A-T	1011	748	820	1115	1229	775	979	160	231	290

The figure below is applicable to the model whose refrigerating capacity range is 22.4 kW to 28.0 kW.

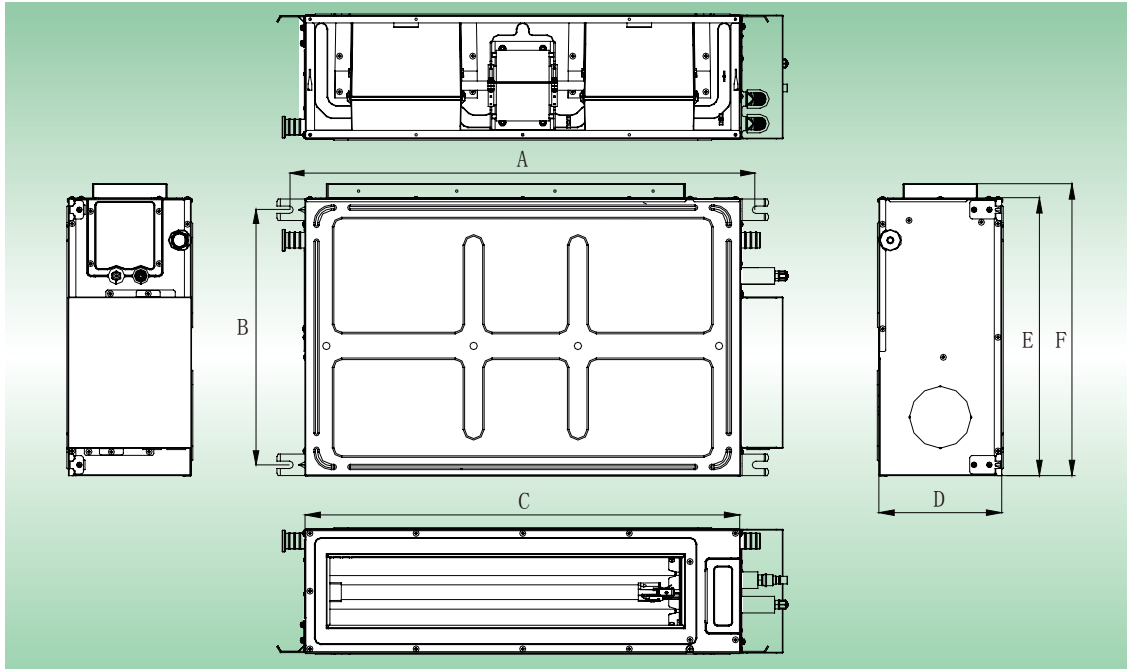


The table below lists the detailed dimensions.

Unit: mm

Model \ Item	A	B	C	D	E	F
GMV-ND224PH/A-T	1353	632	992	1150	192	327
GMV-ND280PH/A-T	1563	706	992	1350	192	402

3) Quiet duct type series



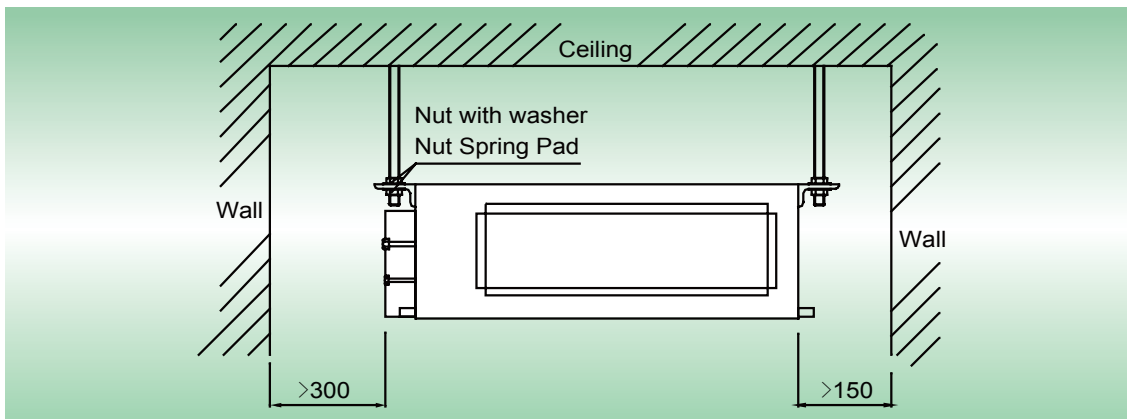
The table below lists the detailed dimensions.

Unit: mm

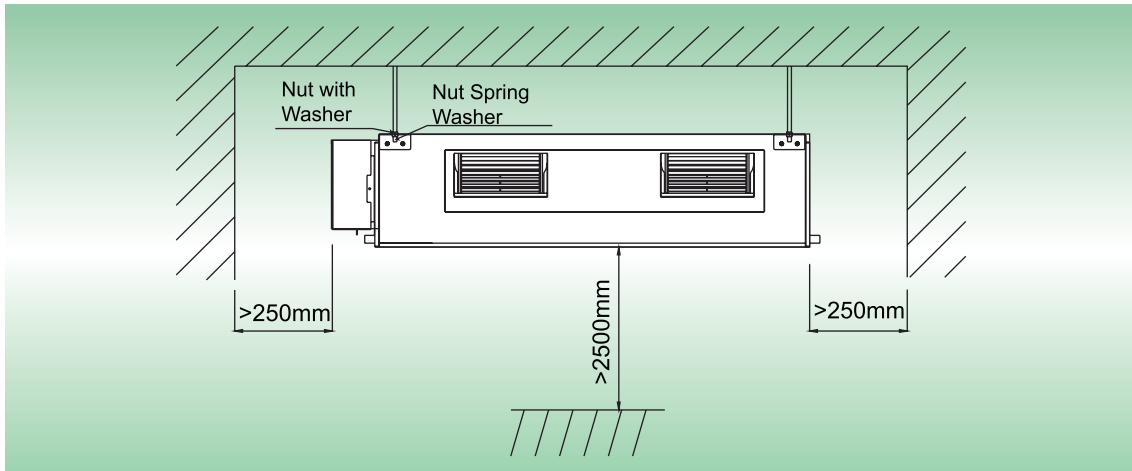
Model \ Item	A	B	C	D	E	F
GMV-ND22~36PL/B-T	760	415	700	200	450	474
GMV-ND40~63PL/B-T	1060	415	1000	200	450	474
GMV-ND72PL/B-T	1360	415	1300	200	450	474

(b) Installation and Maintenance Spaces of Air Duct Type Units

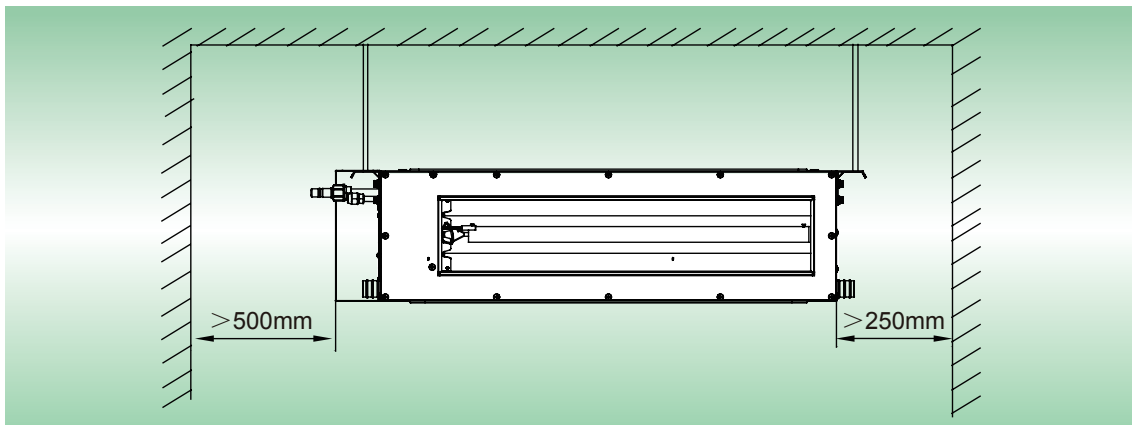
a) Low Static Pressure Duct Type GMV-ND**PLS/A-T Series



b) High Static Pressure Duct Type GMV-ND**PHS/A-T Series

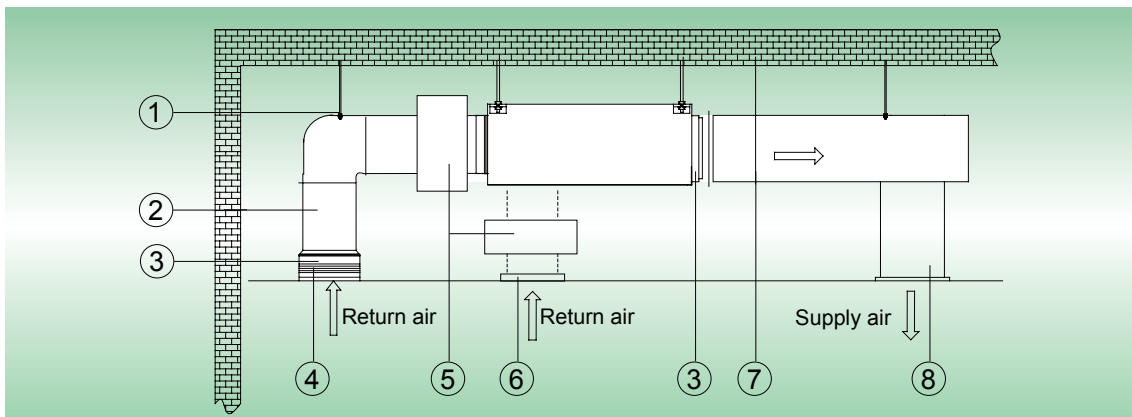


c) Low Static Pressure Quiet Duct Type GMV-ND**PL/B-T Series



(c) Installing Air Supply Ducts

a) Installing the rectangular air duct



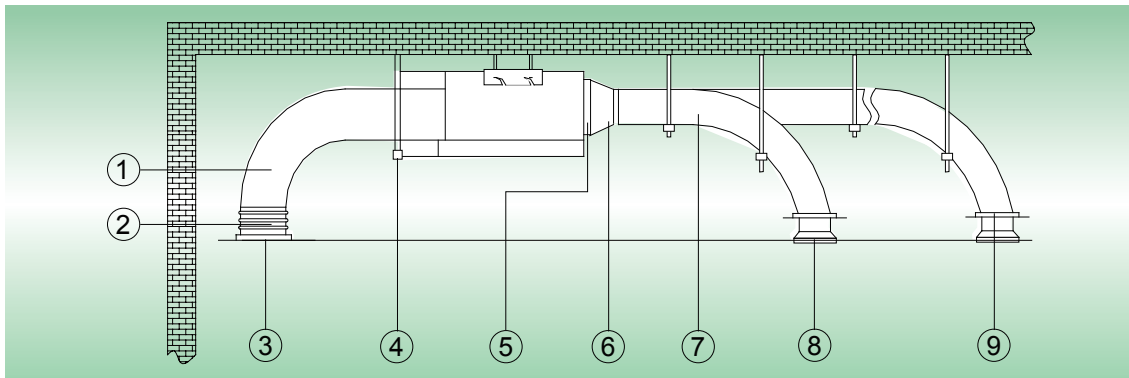
No.	1	2	3	4	5	6
Name	Hanger rod	Air return pipe	Air duct-type indoor unit	Return air inlet	Air supply duct	Air outlet

The above figure indicates only installation of the rear air return vent. The lower air return vent can also be used according to the actual installation requirement, and the installation method is similar to the method of installing the rear air return vent. The air supply duct is a rectangular air duct, which is

connected to the air outlet of indoor unit. At least one of all the air supply outlets should be kept open. The air supply outlet and air return vent joint, and the air return vent and air supply outlet joint are connected using canvas (select canvas with thermal insulation effect). When there are static pressure and low noise requirements, a plenum box is connected between the air supply outlet and the air supply duct. The air outlet dimension of the plenum box is consistent with the air supply outlet dimension. The plenum box is connected to the air supply outlet using canvas.

If the rear air return mode is used, a space for installing the return duct is reserved in the suspended air duct indoor unit. The air return vent dimension should be as large as possible, and the air speed should be as low as possible.

b) Installing the circular air duct



No.	1	2	3	4	5	6	7
Name	Hanger rod	Air return pipe	Air duct-type indoor unit	Return air inlet	Transition air duct	Air supply duct	Air outlet

NOTES:

a. The maximum air duct length refers to the total length of the air supply duct of the farthest air supply outlet plus the total length of the return duct of the corresponding farthest return air inlet.

b. To connect the unit with auxiliary electric heating to a circular air duct, the straight length of the transition air duct should be at least 200 mm.

◆ Installation procedure of the circular air duct

(1) Pre-install the circular air outlet at the transition air duct, and use self tapping screws to fasten it.

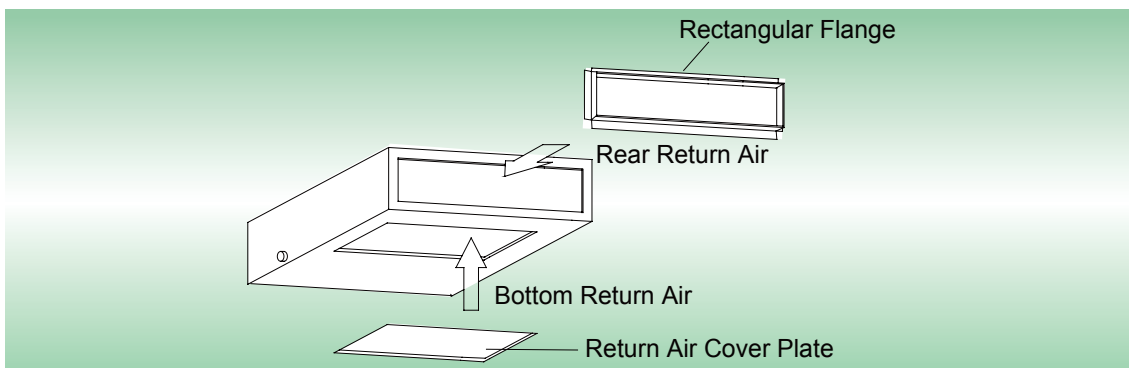
(2) Cover the air outlet of the unit with the transition air duct, and use rivets to connect them.

(3) Cover the circular air outlet with the duct outlet, and use a band to tie them tightly. Then, the circular air duct is connected to the unit. Other operations are omitted here.

(d) Installing Air Return Pipe

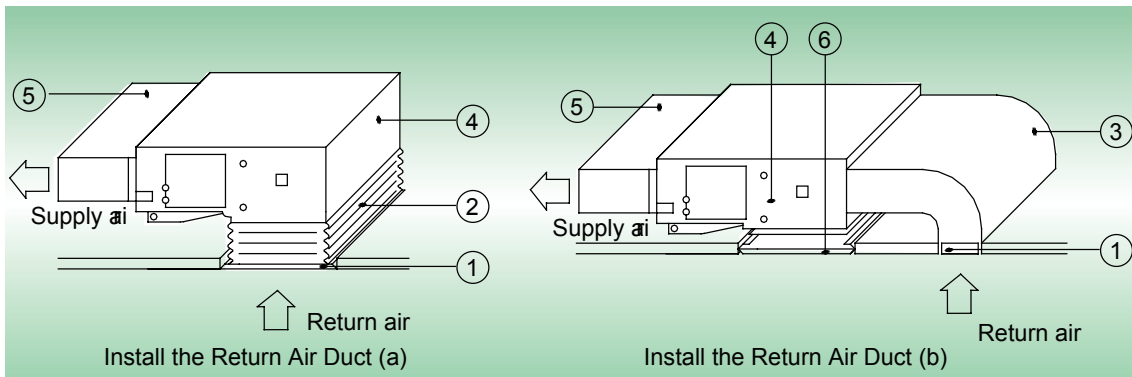
※ The unit is the rear air return mode before delivery, and the air return cover is installed at the lower part, as shown below.

※ If lower air return is required, exchange the position of the square flange with that of the air return cover.



※ Use rivets to connect the return duct to the air return vent of the indoor unit, and connect the other end to the air return vent. To freely adjust the height, prepare a section of canvas air duct, use 8# iron wire to reinforce the duct, and fold it.

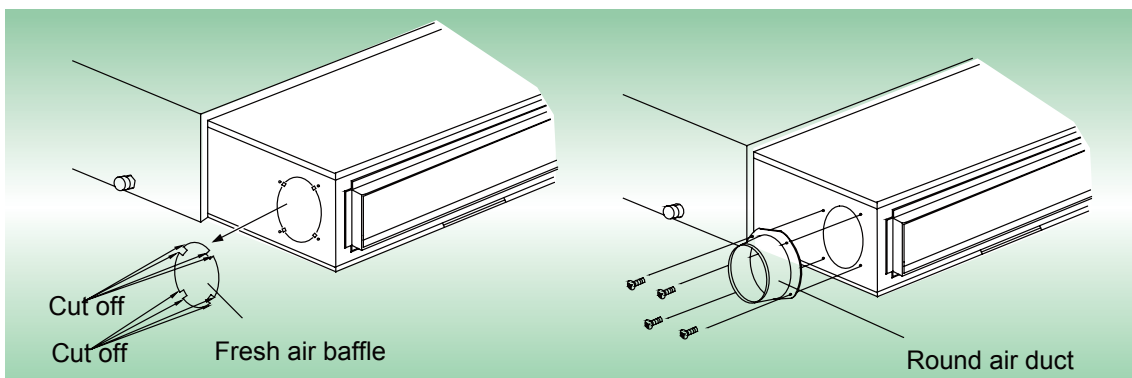
Select lower air return or rear air return mode according to the installation and maintenance spaces, and install the return duct as shown below.



No.	Name	No.	Name
1	Air return vent (with a filter screen)	4	Indoor unit
2	Canvas air duct	5	Air supply duct
3	Return duct	6	Maintenance grille

NOTES:

- a. Since the lower air return mode generates more noises than the rear air return mode does, the lower air return mode is not recommended.
- b. Usually the lower air return mode is adopted for the site with a small installation space.
- (e) Installing Fresh Air Duct
 - ※ To connect a fresh air duct, first cut off the fresh air baffle, as shown in the left part of the following figure. If you do not want to use the fresh air duct, use sponge to block the fresh air baffle gap.
 - ※ Install the circular flange to connect to the fresh air duct, as shown in the right part of the following figure.
 - ※ Both the air duct and the circular flange should be well sealed and insulated.
 - ※ Fresh air must be filtered air.

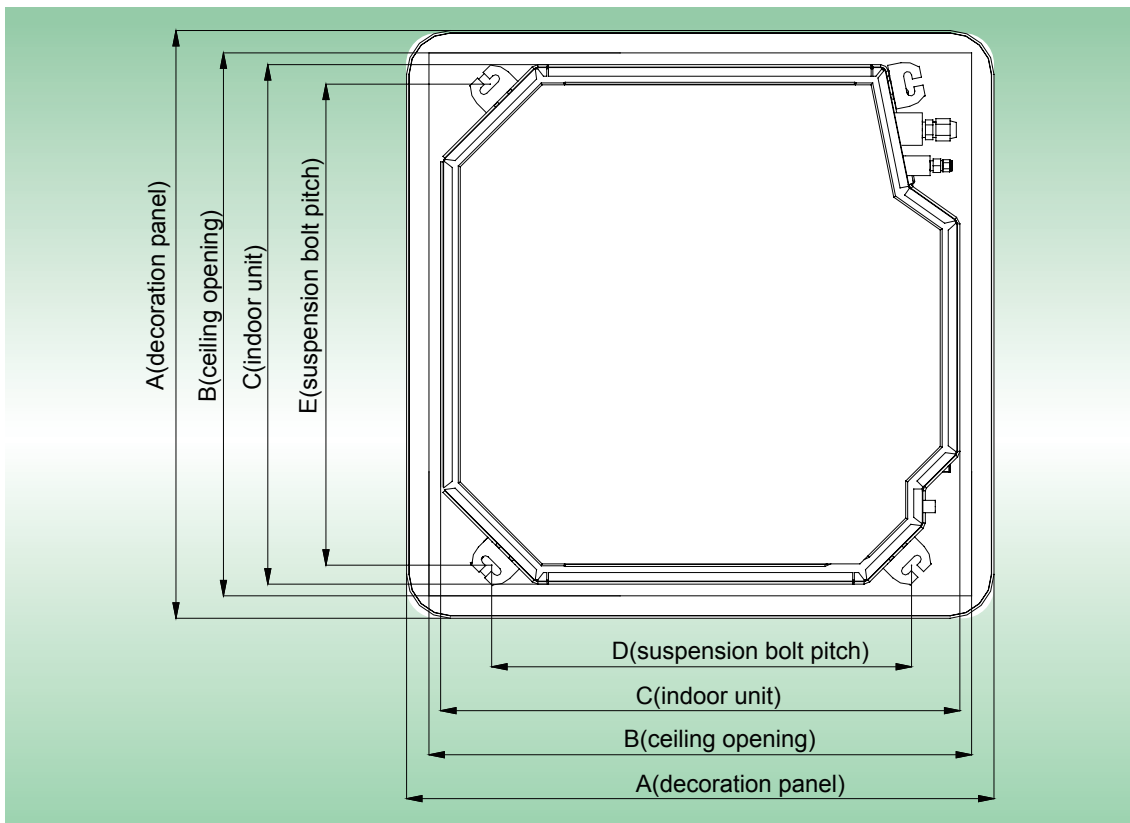


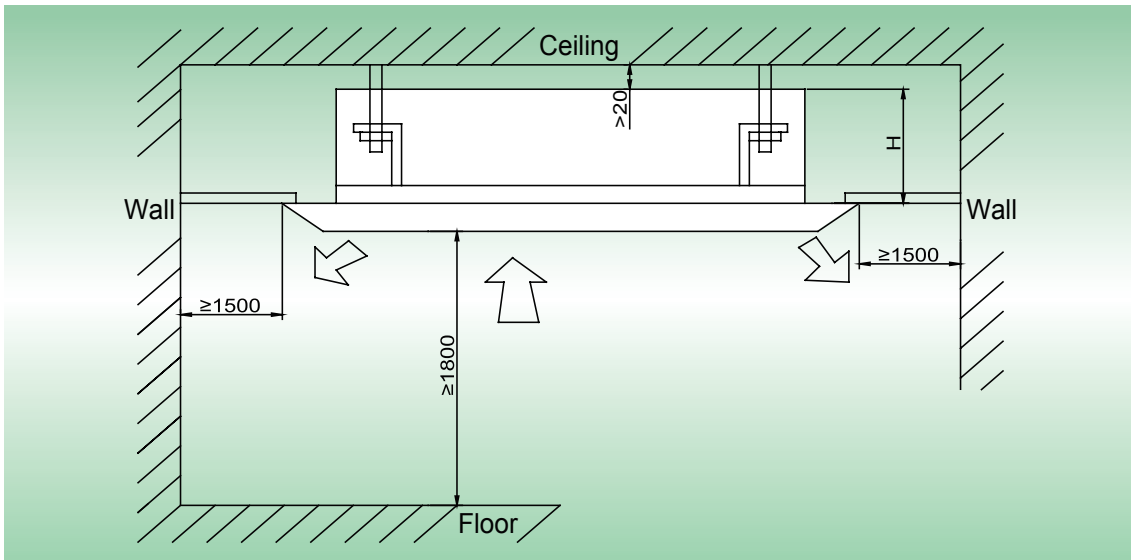
NOTES:

- Both the air supply duct and return duct should be provided with an insulating layer to prevent heat loss and condensation.
- All the air supply ducts and return ducts should be fastened on the floor precast slab using iron supporters, and the air duct joints should be sealed properly using glue to prevent air leakage.
- The air duct design and construction must comply with the relevant engineering specification requirements of the state.
- The recommended distance between the return duct edge and the wall is over 150 mm, and a filter should be installed at the air return vent.
- Measures for noise reduction and shock absorption should be taken into account in air duct design and construction.

2) Four-way Cassette Indoor Unit

Requirements for external dimensions and installation and maintenance spaces





The table below lists the detailed dimensions.

Unit: mm

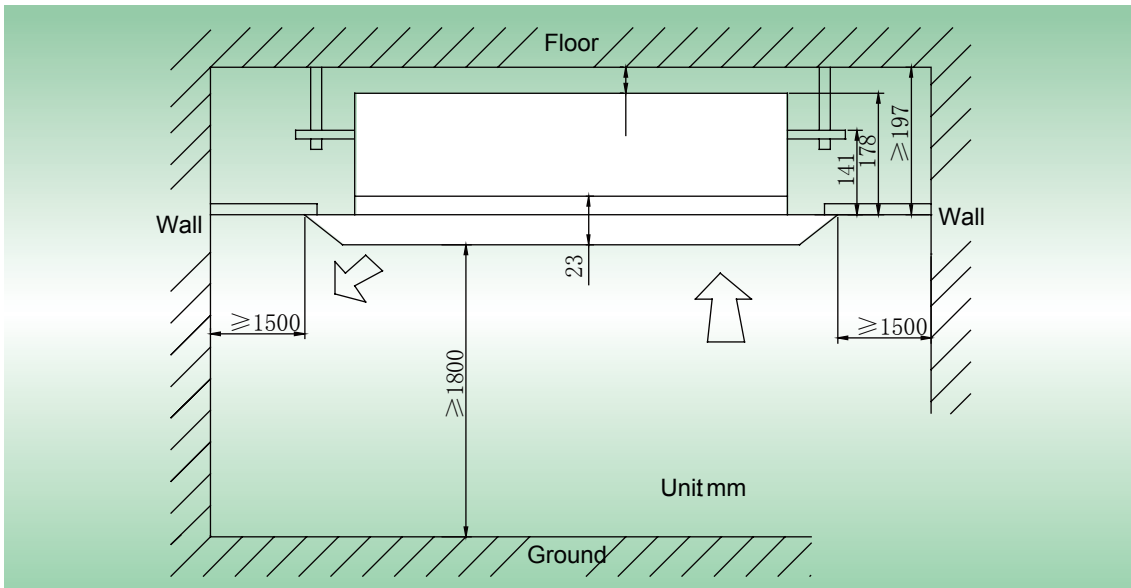
Model \ Item	A	B	C	D	E	G	H
GMV-ND28T/A-T GMV-ND36T/A-T GMV-ND45T/A-T GMV-ND50T/A-T	950	890	840	680	780	65	210
GMV-ND56T/A-T GMV-ND63T/A-T GMV-ND71T/A-T GMV-ND80T/A-T	950	890	840	680	780	65	260
GMV-ND90T/A-T GMV-ND100T/A-T GMV-ND112T/A-T GMV-ND125T/A-T GMV-ND140T/A-T	950	890	840	680	780	65	340
GMV-ND(R)160T/A-T	1040	975	910	787	840	65	315

3) One-way Air Discharge Cassette Indoor Unit

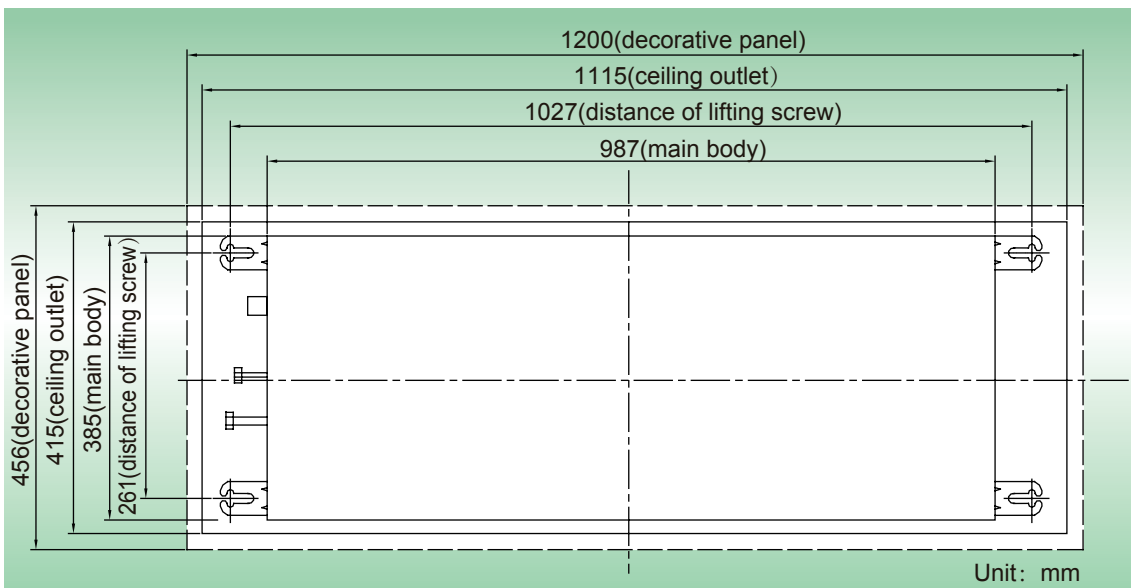
Requirements for external dimensions and installation and maintenance spaces.

◆ External Dimensions

Unit: mm



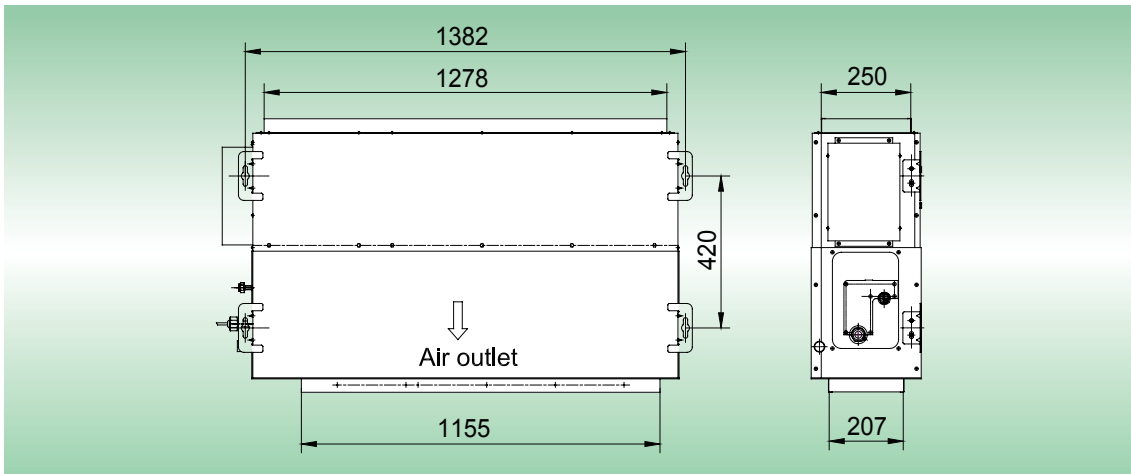
◆ Installation and Maintenance Spaces



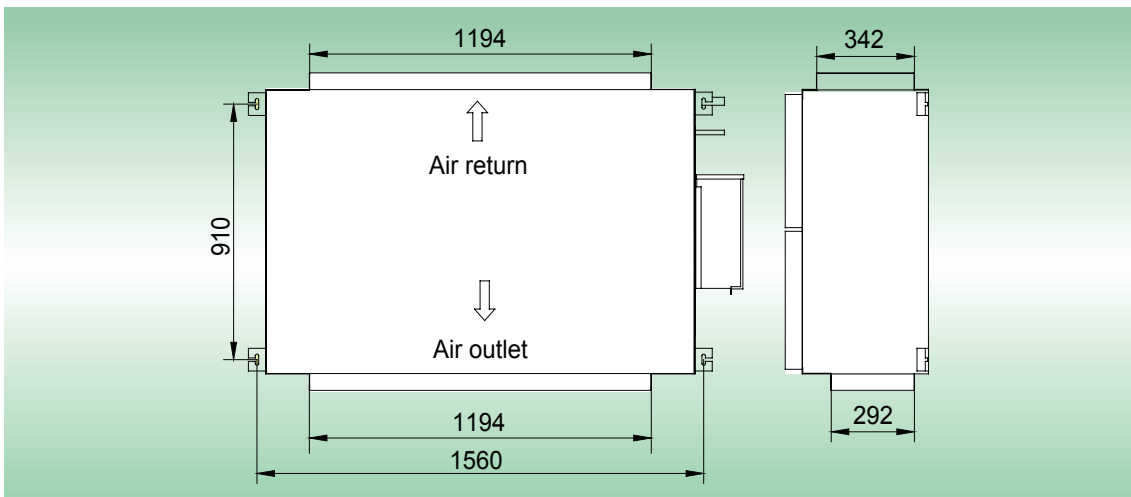
4) VRF Fresh Air Processor

◆ External Dimensions (Unit: mm)

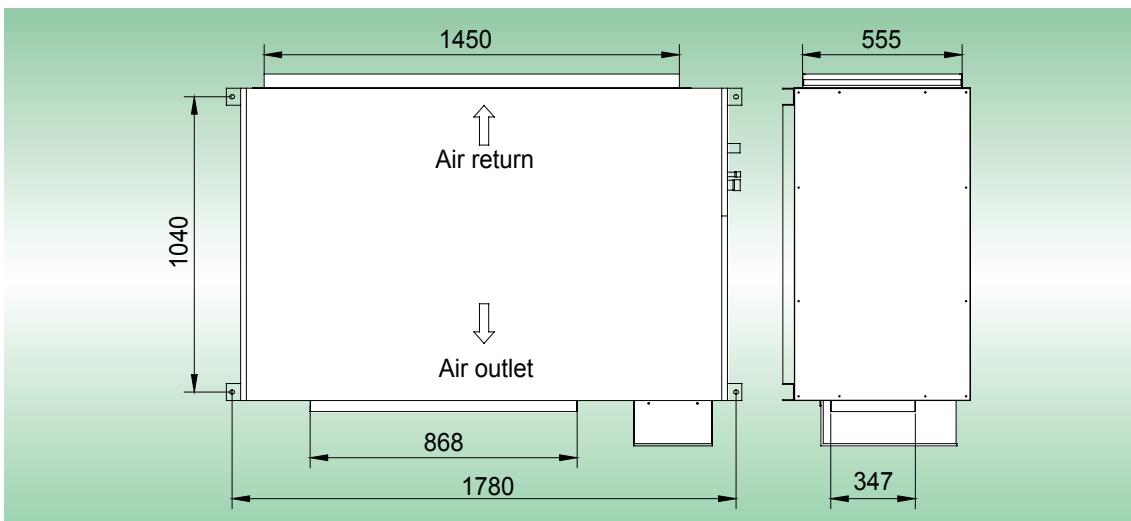
GMV-NX140P/A(X1.2)-K



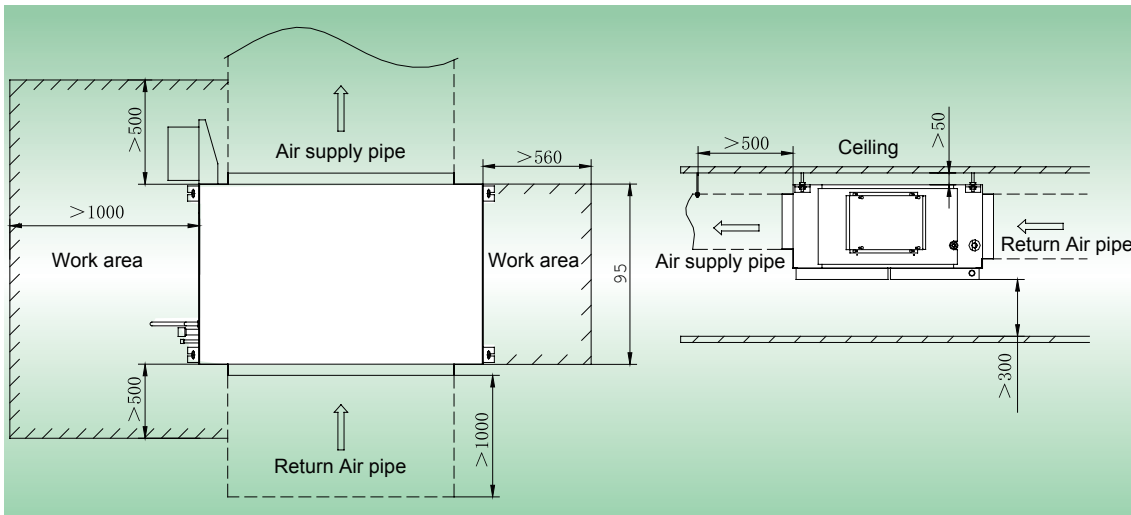
GMV-NX224P/A(X2.0)-M; GMV-NX280P/A(X2.5)-M; GMV-NX280P/A(X3.0)-M



GMV-NX450P/A(X4.0)-M



◆ Installation and Maintenance Spaces



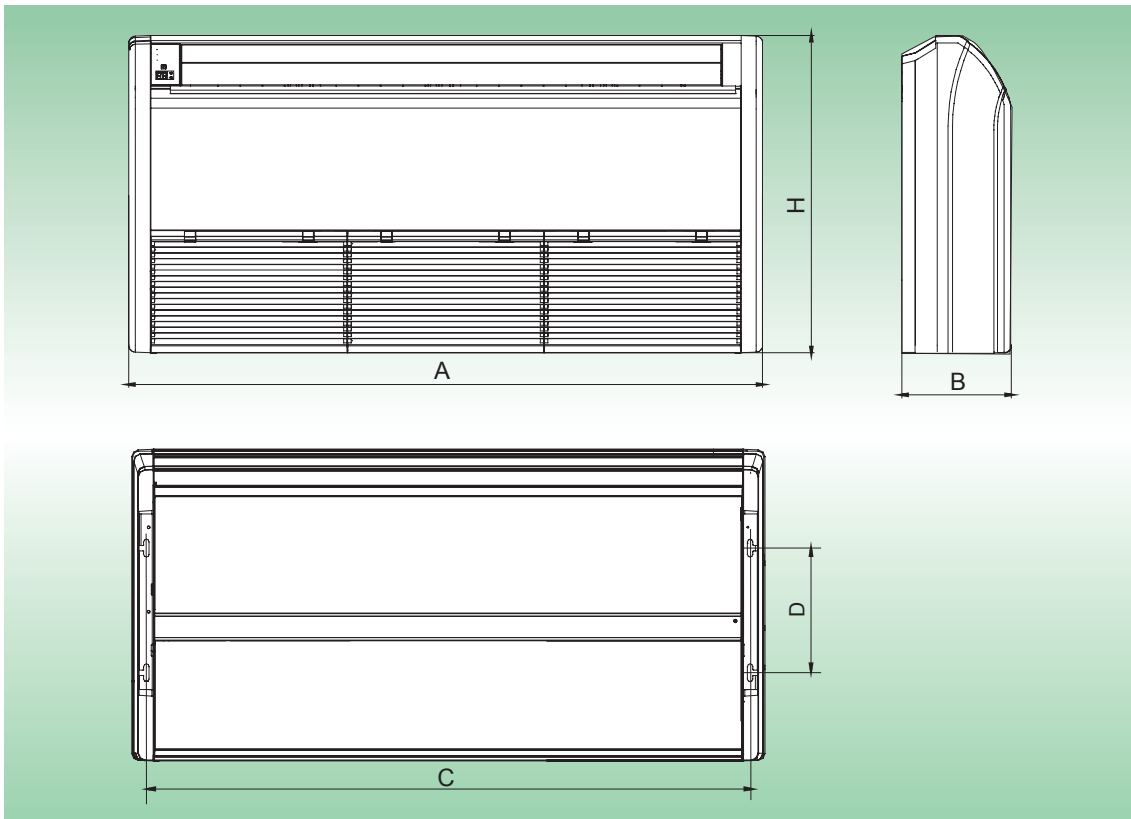
5) Floor Ceiling Split Unit

◆ External Dimensions

The table below lists the detailed dimensions.

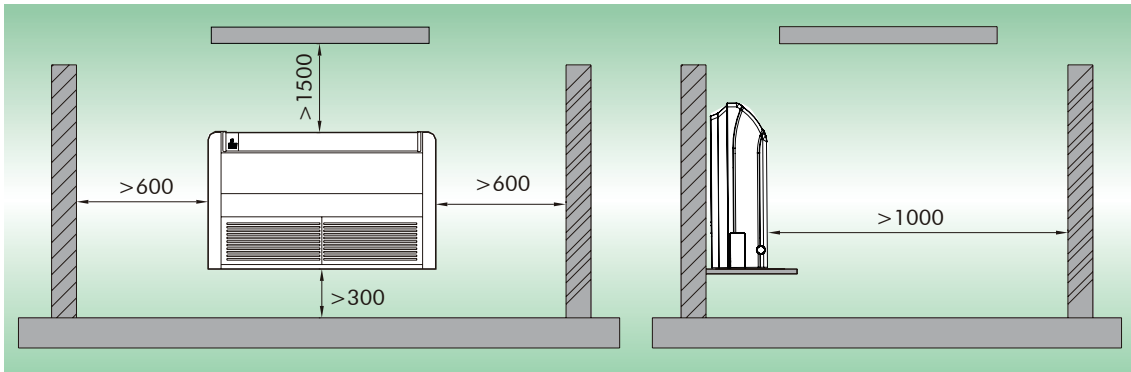
Unit: mm

Model \ Item	A	B	C	D	H
GMV-ND28ZD/A-T GMV-ND36ZD/A-T GMV-ND50ZD/A-T	1220	225	1158	280	700
GMV-ND63ZD/A-T GMV-ND71ZD/A-T GMV-ND90ZD/A-T	1420	245	1354	280	700
GMV-ND112ZD/A-T GMV-ND125ZD/A-T GMV-ND140ZD/A-T	1700	245	1634	280	700

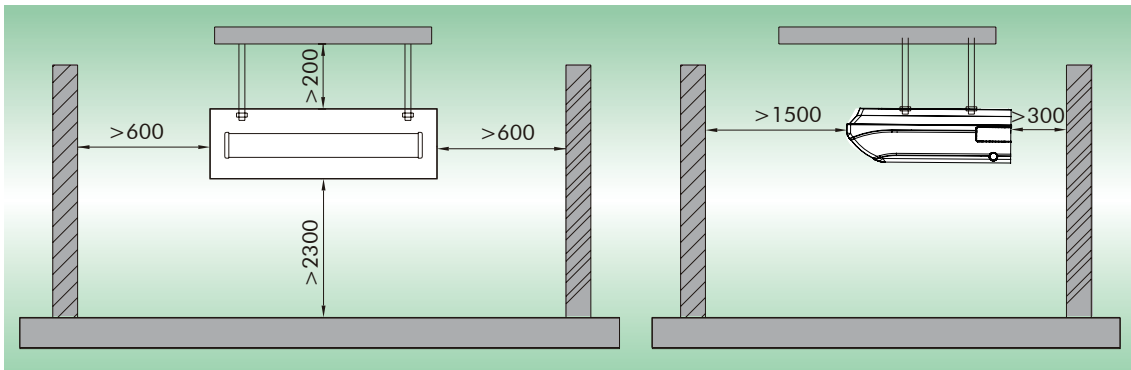


◆ Installation and Maintenance Spaces(Unit: mm)

Floor type

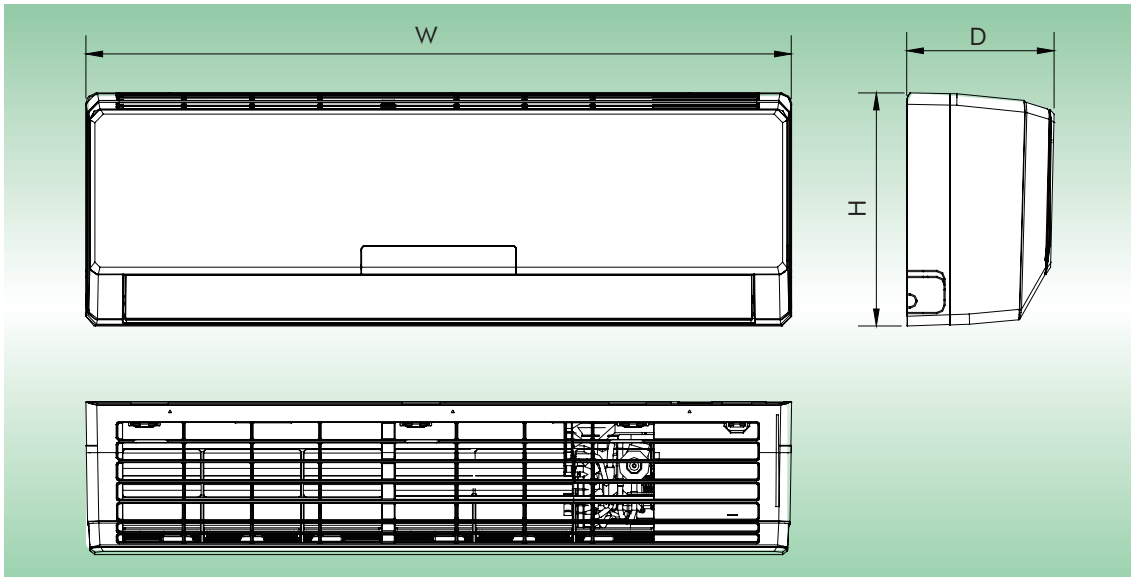


Ceiling type



5) Wall-Mounted Unit

◆ External Dimensions

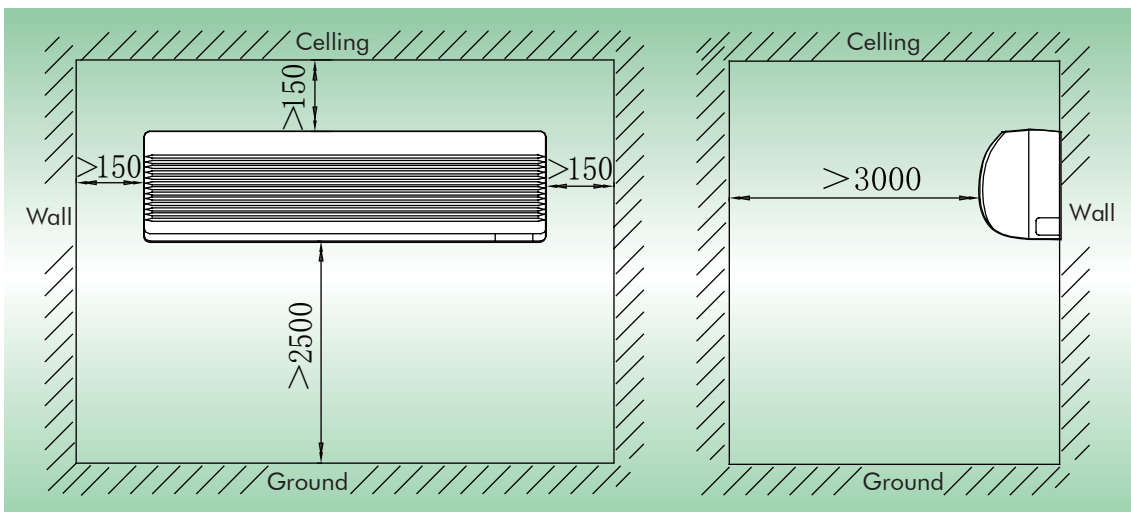


The table below lists the detailed dimensions.

Unit: mm

Model	Item	W	H	D
GMV-N22G/A3A-K GMV-N28G/A3A-K		843	275	180
GMV-N36G/A3A-K GMV-N45G/A3A-K GMV-N50G/A3A-K		940	298	200
GMV-N56G/A3A-K GMV-N63G/A3A-K GMV-N71G/A3A-K		1008	221	319

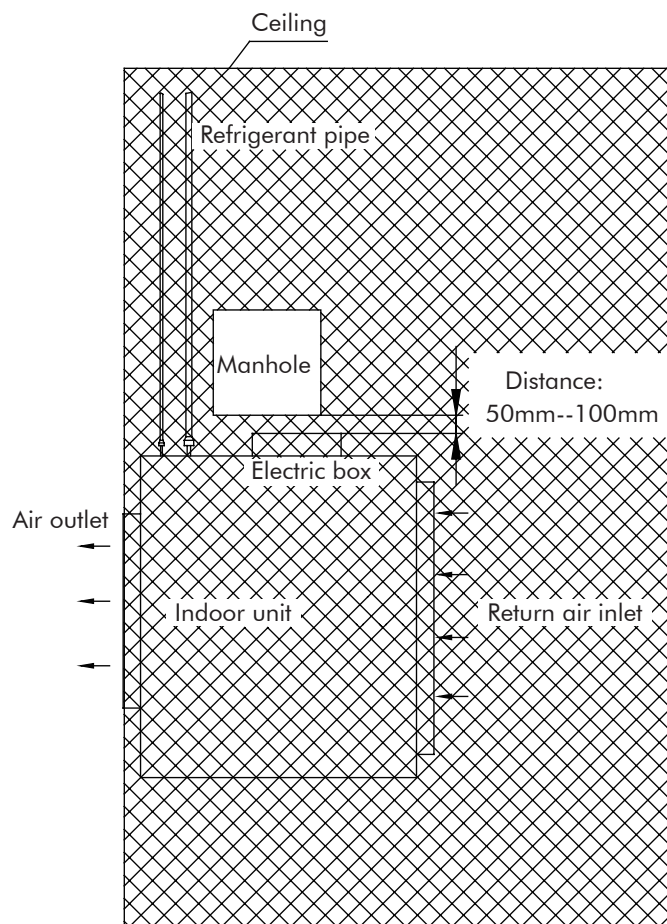
◆ Installation and Maintenance Spaces(Unit: mm)



➔ 9.5 Locating the manhole and air return vent

In addition to consideration of the sufficient maintenance space to be reserved during unit locating, it is also important to locate the manhole. If manhole locating is improper, it will also make future maintenance and repair more difficult.

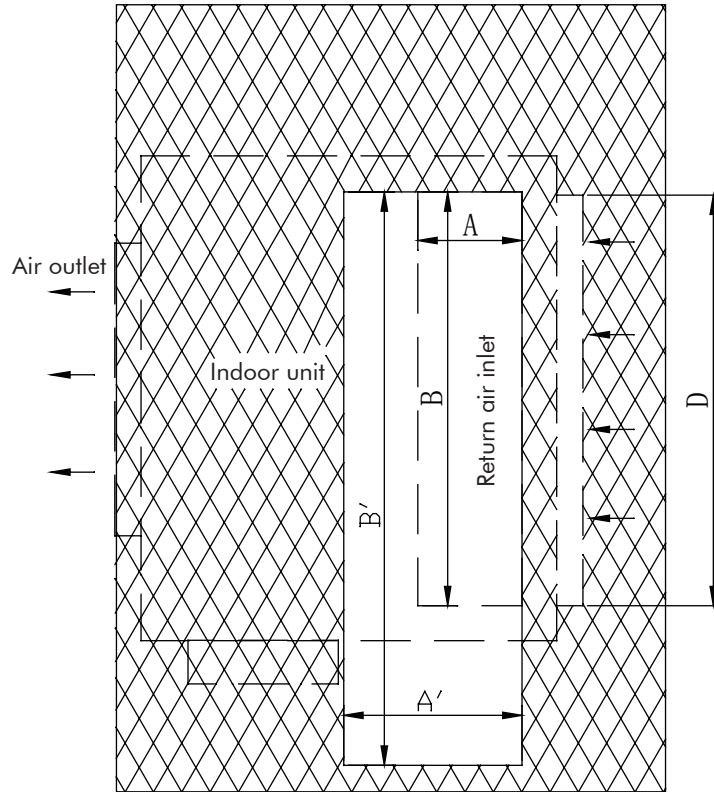
The manhole size can accommodate the shoulder width of a normal adult. It cannot be smaller than 450mm × 450mm. Usually the indoor unit in the air supply mode of air duct is located at the electric box side of the unit, the distance from the electric box is 50 mm to 100 mm, and maintenance of the pipeline part must also be considered. The pipeline maintenance position of the pipeline is mainly considered for the air raise type indoor unit, so the manhole can be located at a position that ensures the distance between one edge and the connection pipe is 200 mm to 250 mm. The schematic diagram is shown below:



The air return vent position must also be considered for the indoor unit in the air supply mode of air duct. The air return vent is responsible for air return of the unit, and also used to complete maintenance of the indoor fan motor and filter screen. Therefore, in addition to meeting the air return design requirements mentioned above, there is a must to ensure the requirement for replacing the motor and filter screen.

- Do not set the air return vent of the unit near the door, toilet or kitchen; otherwise problems such as condensation and peculiar smell may be caused.
- The length direction of the air return vent cannot be smaller than 2/3 of the air return vent length of the unit.
- If the air return vent is set directly behind the unit, the distance between its position and the unit cannot be greater than 300 mm. The width direction of the air return vent cannot be smaller than 200 mm.

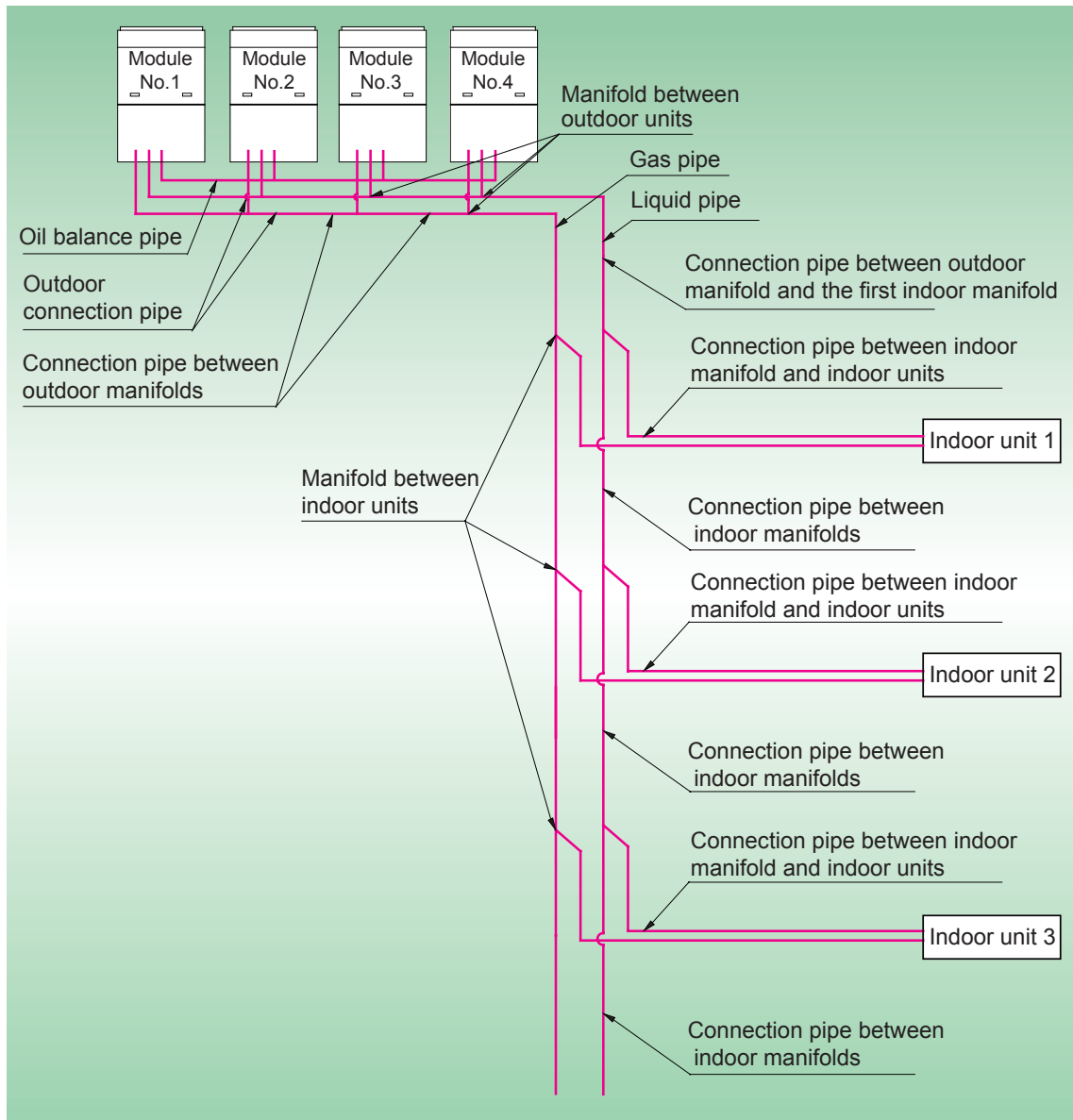
d. For the design of also using the air return vent as a manhole for the electric box, the maintenance position should also be reserved at the electric box side according to the above principle. At the same time, it is required to consider whether the position of the air return vent can ensure easy removal and replacement of the fan motor and filter screen. Therefore, the air return vent should be enlarged to 1.5 to 2 times of the original circulation area according to the actual conditions and on the basis of satisfying the air volume design. The schematic diagram is shown below:



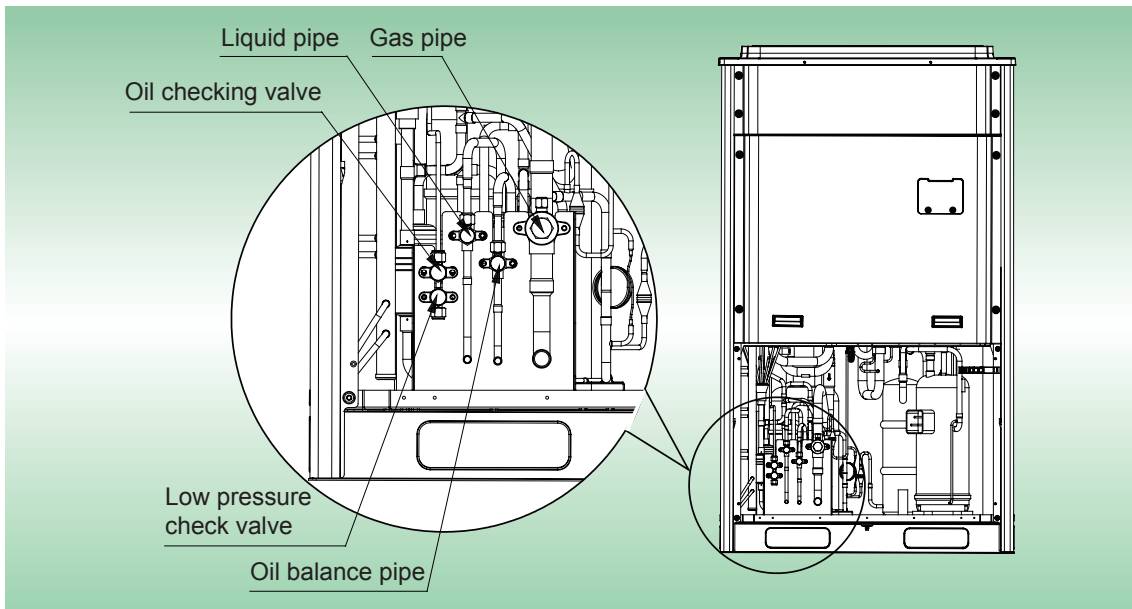
Original air return vent area: $S = A \times B$
 Currently air return vent area: $S' = A' \times B'$
 $S' \geq (1.5 \sim 2.0)S$

10 MODEL SELECTION FOR UNIT PIPING

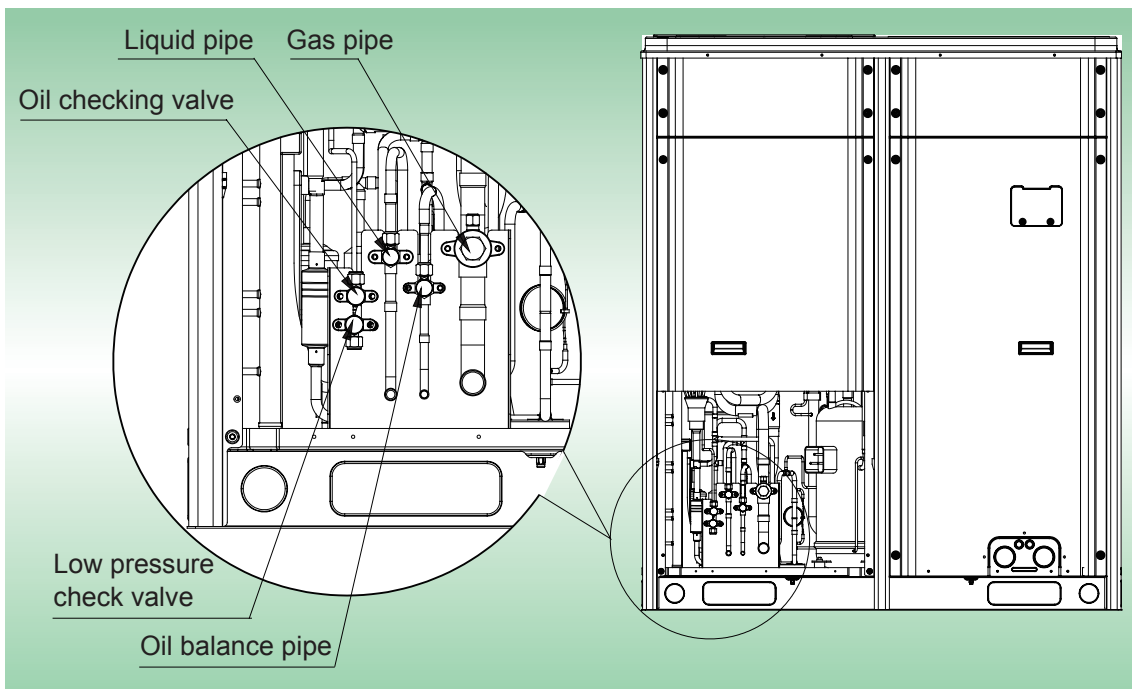
10.1 Schematic Diagram of Piping Connection



Schematic Diagram of Piping Sequence
GMV-224WM/B-X and GMV-280WM/B-X



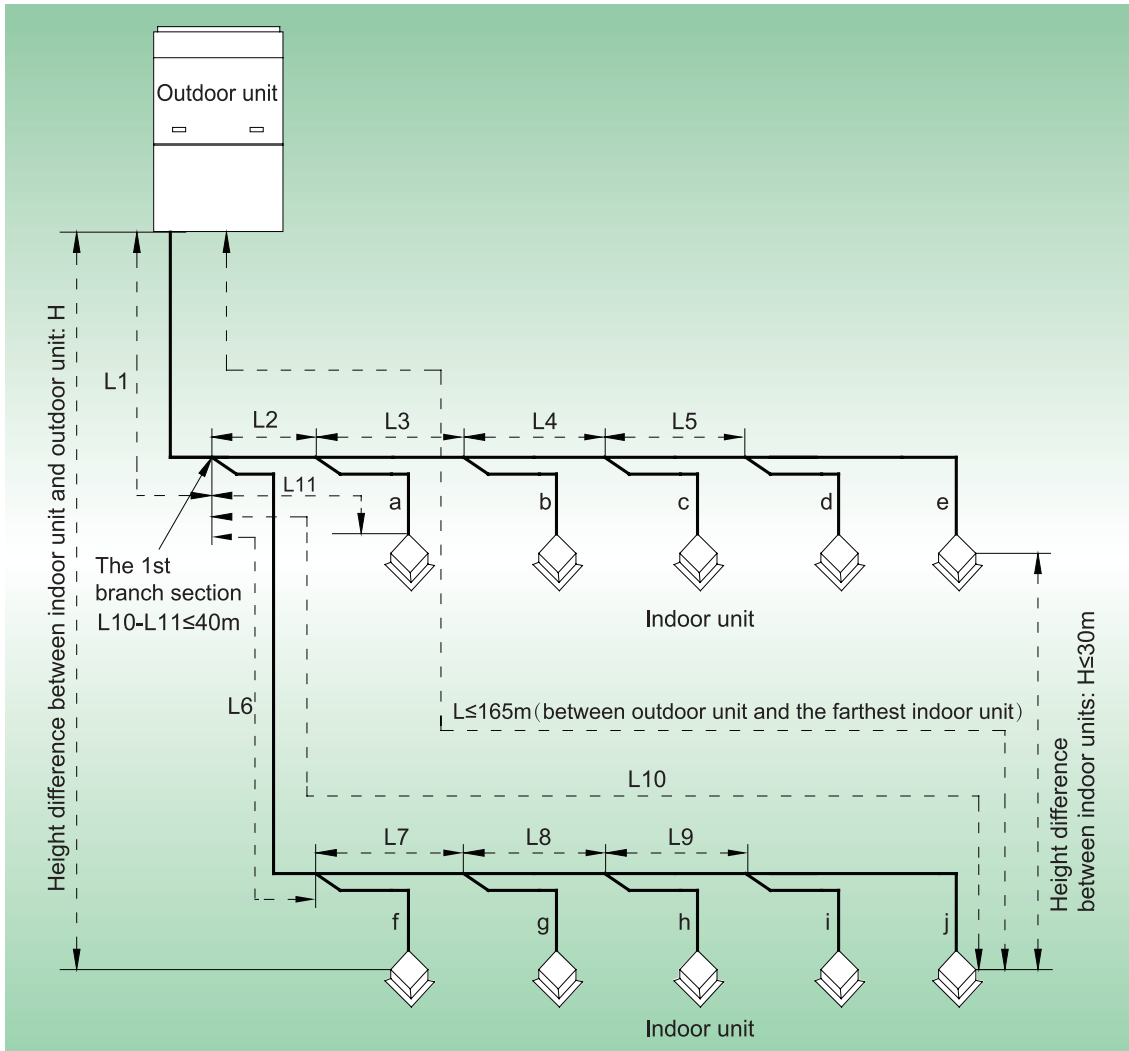
GMV-335WM/B-X, GMV-400WM/B-X and GMV-450WM/B-X



10.2 Allowable pipe length and drop height among indoor and outdoor units

Y type branch joint is adopted to connect indoor and outdoor units. Connecting method is shown in the figure below.

Remark: Equivalent length of one Y-type manifold is about 0.5m.



L10: Length from the first branch to the farthest IDU; L11: Length from the first branch to the nearest IDU; Equivalent length of branch of IDU is 0.5m

R410A Refrigerant System		Allowable Value	Fitting Pipe
Total length (actual length) of fitting pipe		≤ 1000	$L1+L2+L3+L4+\dots+L9+a+b+\dots+i+j$
Length of farthest fitting pipe(m)	Actual length	≤ 165	$L1+L6+L7+L8+L9+j$
	Equivalent length	≤ 190	
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		≤ 40	$L10-L11$
Equivalent length from the first branch to the furthest piping (1)		≤ 40	$L6+L7+L8+L9+j$
Height difference between outdoor unit and indoor unit	Outdoor unit at upper(4)	≤ 90	—
	Outdoor unit at lower(4)	≤ 90	—

Height difference between indoor units (m)	≤ 30	—
Maximum length of Main pipe(2)	≤ 90	L1
From IDU to its nearest branch (3)	≤ 10	a,b,c,d,e,f,g,h,i,j

NOTES:

a. 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: $L1 + L2 \times 2 + L3 \times 2 + L4 \times 2 + \dots + L9 \times 2 + a + b + \dots + i + j \leq 1000\text{m}$;

② Length between each IDU and its nearest branch a, b, c, d, e, f, g, h, i, j ≤ 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: $L10 - L11 \leq 40\text{m}$.

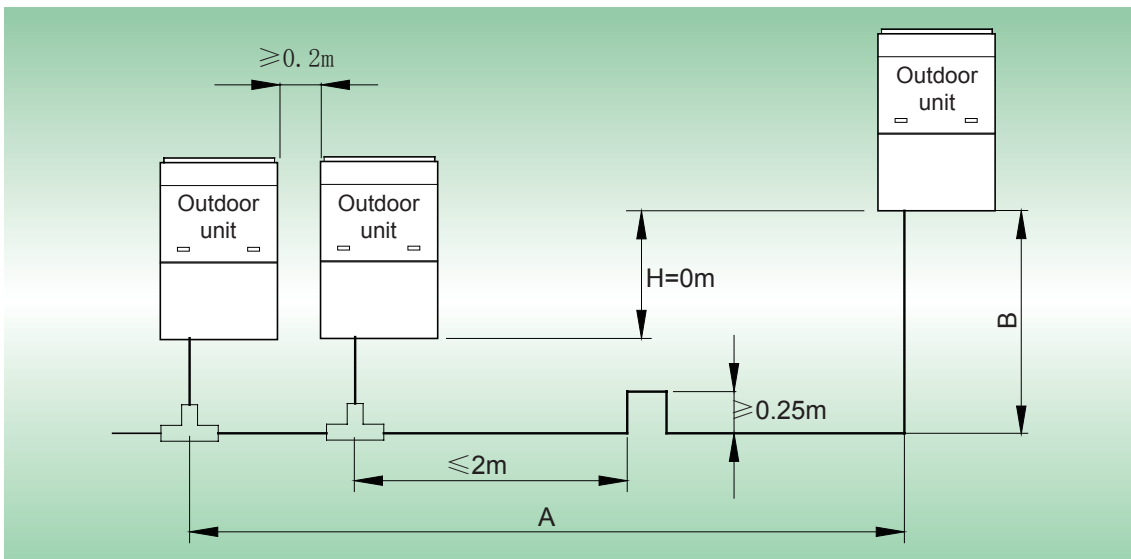
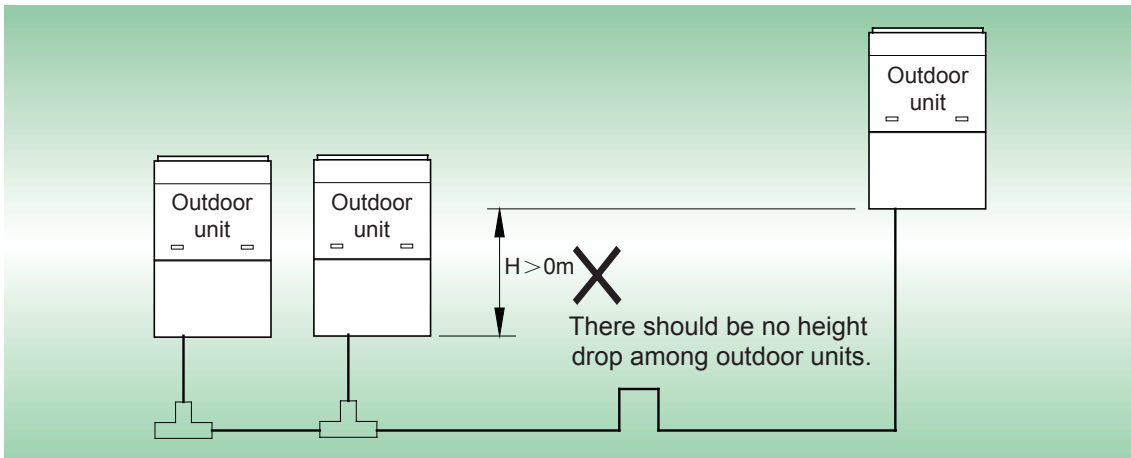
b. When the maximum length of the main pipe from ODU to the first branch of IDU is ≥ 90m, then adjust the pipe size of the gas pipe and liquid pipe of main pipe according to the following table.

Outdoor Model	Gas pipe size(mm)	Liquid pipe size(mm)
GMV-224WM/B-X	No need to enlarge pipe size	No need to enlarge pipe size
GMV-280WM/B-X	No need to enlarge pipe size	Φ 12.7
GMV-335WM/B-X	Φ 28.6	Φ 15.9
GMV-400WM/B-X	Φ 31.8	Φ 15.9
GMV-450WM/B-X	Φ 31.8	Φ 15.9
GMV-504WM/B-X	Φ 34.9	Φ 19.05
GMV-560WM/B-X	Φ 34.9	Φ 19.05
GMV-615WM/B-X	Φ 34.9	Φ 19.05
GMV-680WM/B-X	No need to enlarge pipe size	Φ 19.05
GMV-730WM/B-X	Φ 38.1	Φ 22.2
GMV-785WM/B-X	Φ 38.1	Φ 22.2
GMV-850WM/B-X	Φ 38.1	Φ 22.2
GMV-900WM/B-X	Φ 38.1	Φ 22.2
GMV-960WM/B-X	Φ 41.3	Φ 22.2
GMV-1010WM/B-X	Φ 44.5	Φ 22.2
GMV-1065WM/B-X	Φ 44.5	Φ 22.2
GMV-1130WM/B-X	Φ 44.5	Φ 22.2
GMV-1180WM/B-X	Φ 44.5	Φ 22.2
GMV-1235WM/B-X	Φ 44.5	Φ 22.2
GMV-1300WM/B-X	Φ 44.5	Φ 22.2
GMV-1350WM/B-X	Φ 44.5	Φ 22.2
GMV-1410WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1460WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1515WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1580WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1630WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1685WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1750WM/B-X	No need to enlarge pipe size	Φ 25.4
GMV-1800WM/B-X	No need to enlarge pipe size	Φ 25.4

c. 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 ≤ 6.35mm).

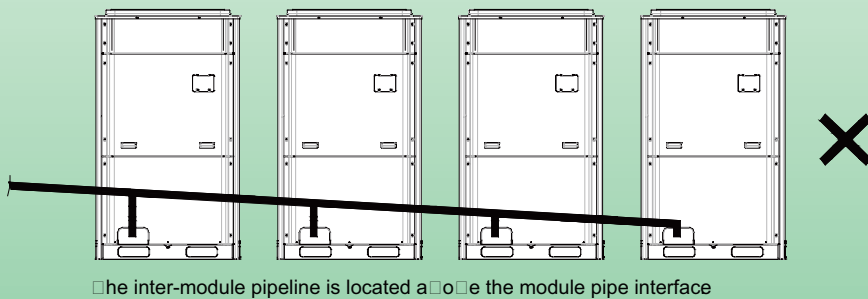
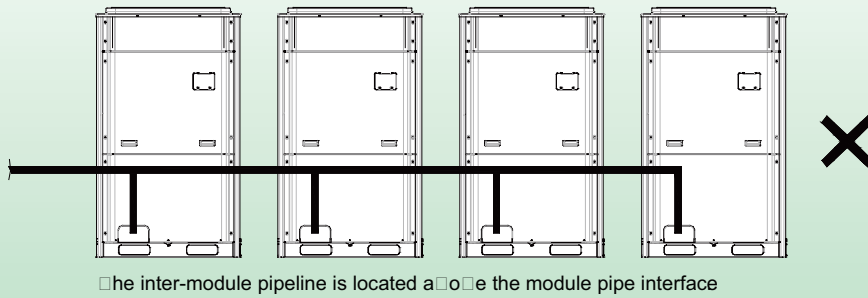
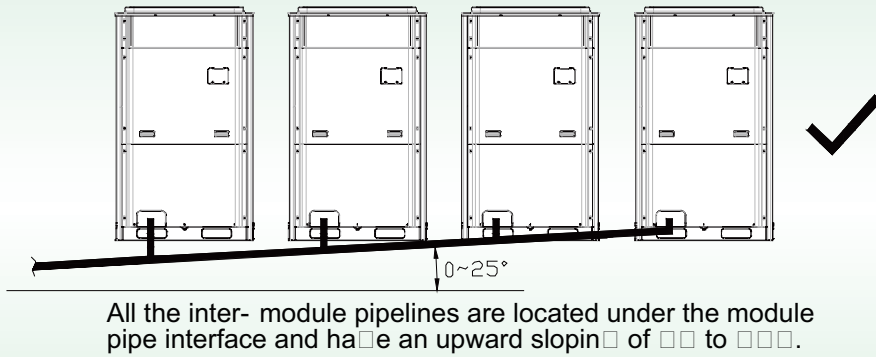
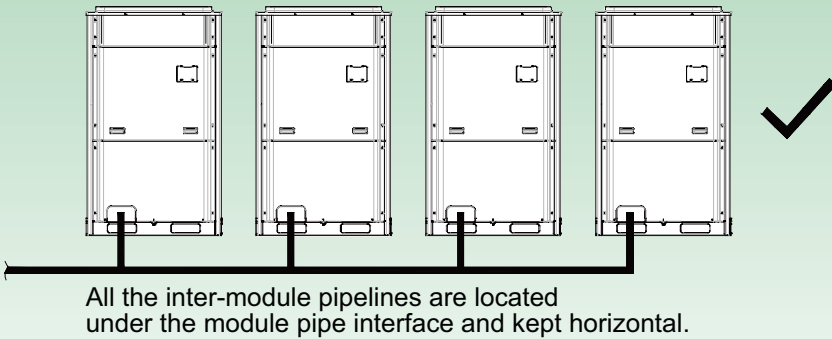
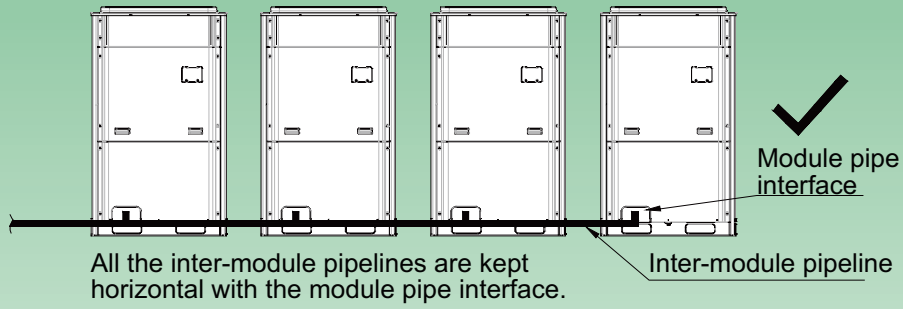
d. When the drop height between IDU and ODU exceeds 90m, please consult manufacturer about the specific technical requirements.

➔ 10.3 Connection Pipe among Outdoor Modules



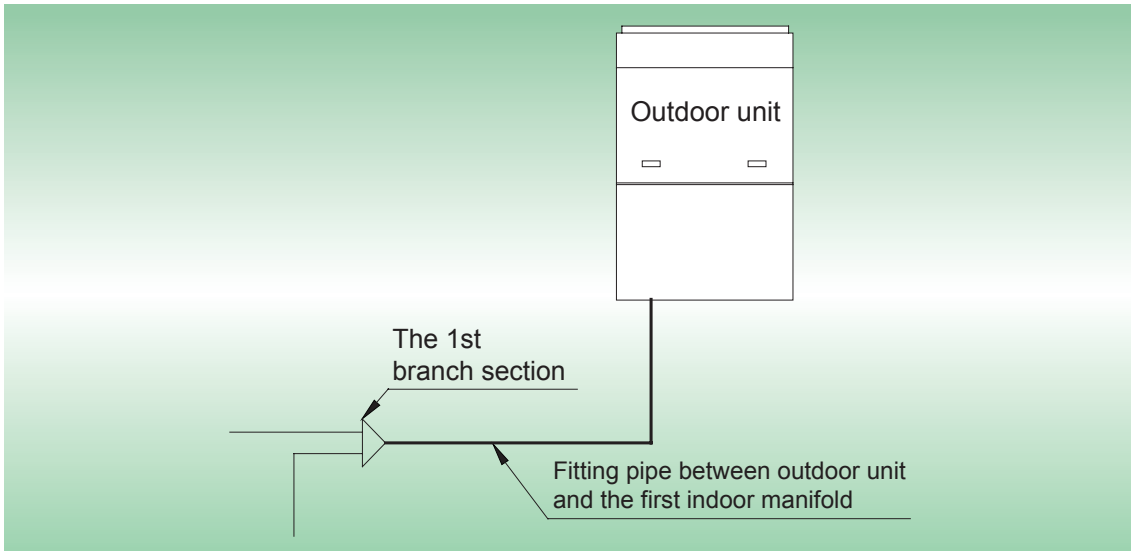
NOTES: When the distance between outdoor units exceeds 2m, U-type oil trap should be added at low-pressure gas pipe. $A + B \leq 10m$.

The pipeline between outdoor units should be installed as follows:



➔ 10.4 Fitting pipe between Outdoor Unit and the First Manifold

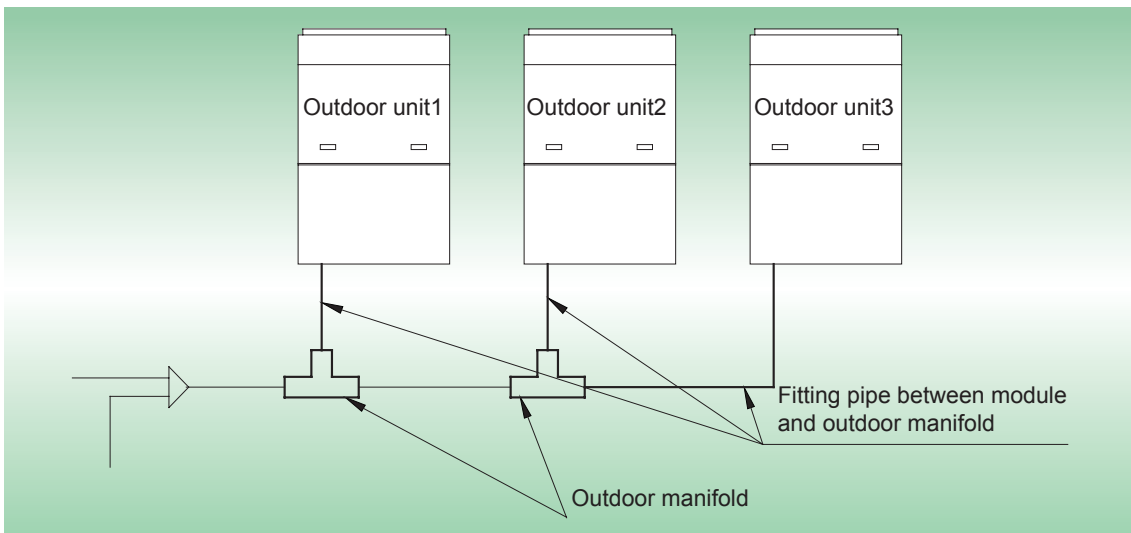
1) For single module system, pipe size (between outdoor unit and the first manifold) is determined by that of outdoor unit.



Pipe size of basic outdoor module is shown as follows:

Basic Module	Pipe between ODU and the first branch of IDU	
	Gas Pipe(mm)	Liquid Pipe(mm)
GMV-224WM/B-X	Φ 19.05	Φ 9.52
GMV-280WM/B-X	Φ 22.2	Φ 9.52
GMV-335WM/B-X	Φ 25.4	Φ 12.7
GMV-400WM/B-X	Φ 25.4	Φ 12.7
GMV-450WM/B-X	Φ 28.6	Φ 12.7

2) For multi-module unit, select appropriate manifold connected to outdoor module as per the pipe size of basic module. Pipe size of basic outdoor module is shown as follows:



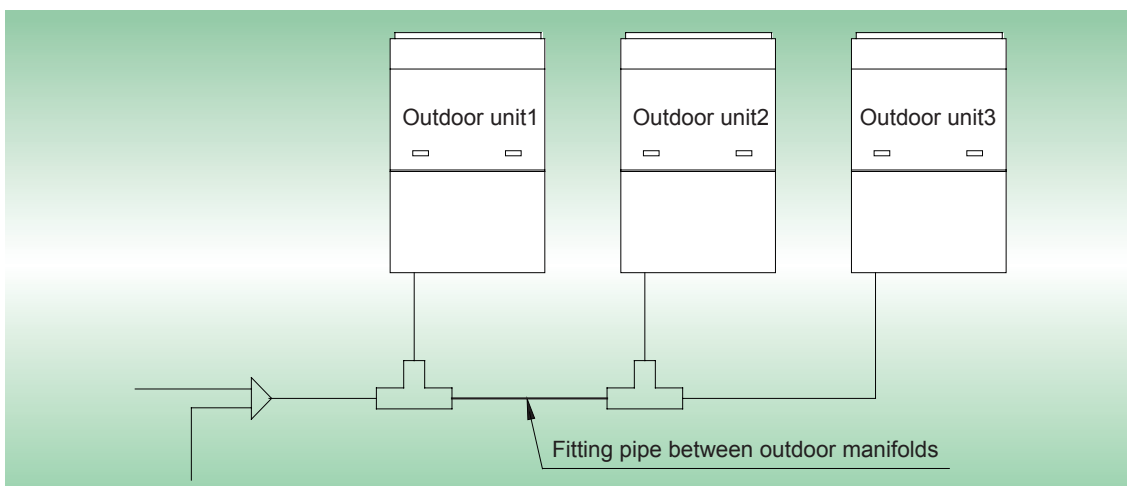
Basic Module	Pipe between module and branch of ODU	
	Gas Pipe(mm)	Liquid Pipe(mm)
GMV-224WM/B-X	Φ 19.05	Φ 9.52
GMV-280WM/B-X	Φ 22.2	Φ 9.52
GMV-335WM/B-X	Φ 25.4	Φ 12.7
GMV-400WM/B-X	Φ 25.4	Φ 12.7
GMV-450WM/B-X	Φ 28.6	Φ 12.7

Select the branch of outdoor module

	Module's capacity (C)	Model
Select the branch of outdoor module	$504 \leq C$	ML01/A

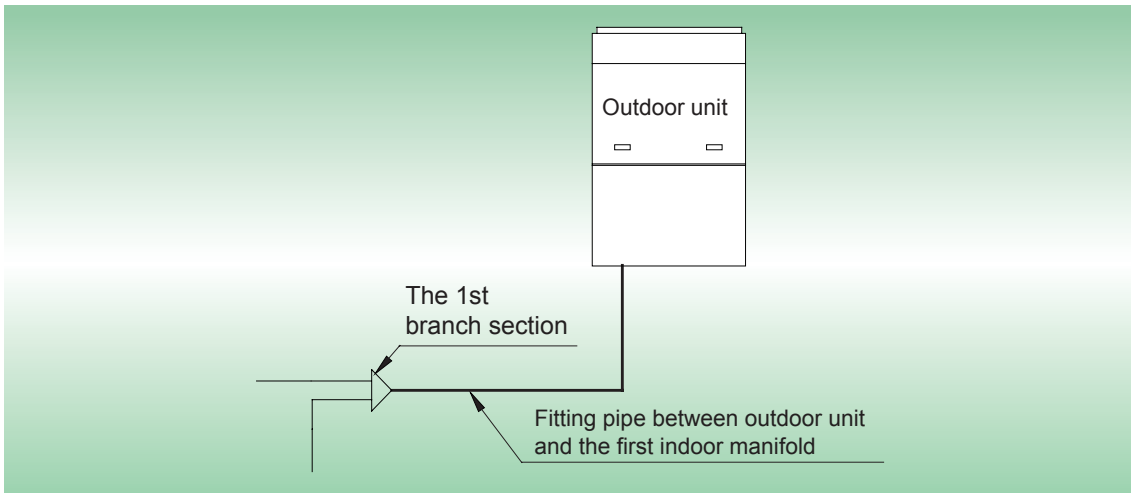
3) Fitting pipe between two manifolds from basic modules

Pipe size (between two manifolds from basic modules) is based on the total capacity of upstream modules.



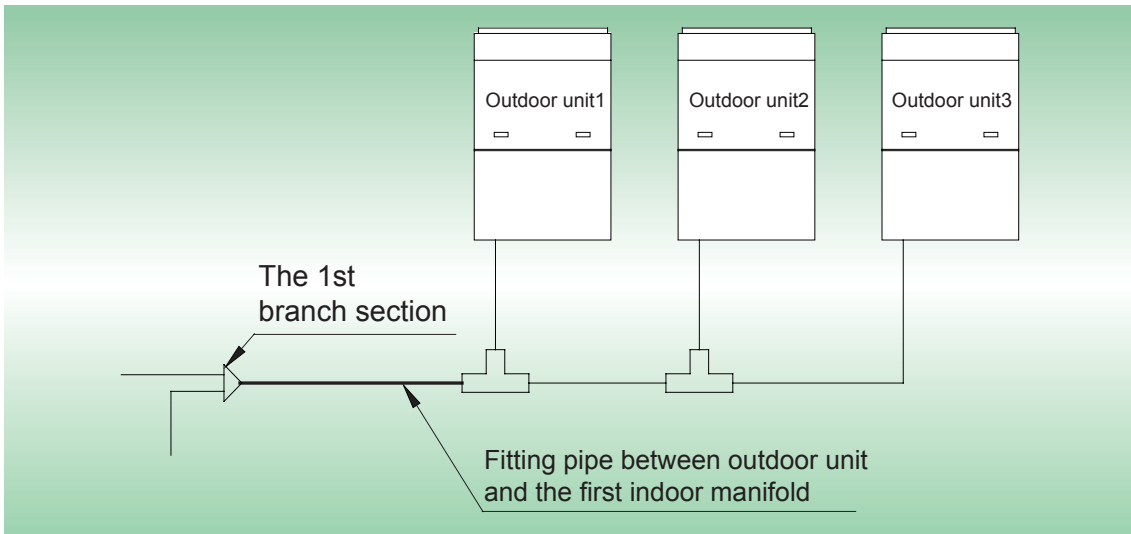
Total capacity of upstream modules Q(kW)	Pipe size between manifolds	
	Gas Pipe(mm)	Liquid Pipe(mm)
$22.4 \geq Q$	Φ 19.05	Φ 9.52
$28.0 \geq Q > 22.4$	Φ 22.2	Φ 9.52
$40.0 \geq Q > 28.0$	Φ 25.4	Φ 12.7
$45.0 \geq Q > 40.0$	Φ 28.6	Φ 12.7
$68.0 \geq Q > 45.0$	Φ 28.6	Φ 15.9
$96.0 \geq Q > 68.0$	Φ 31.8	Φ 19.05
$135.0 \geq Q > 96.0$	Φ 38.1	Φ 19.05
$Q > 135.0$	Φ 44.5	Φ 22.2

4) Fitting pipe between the first manifold from indoor unit and the end manifold from outdoor unit Single module unit



Basic Module(single module)	Pipe between ODU and the first branch of IDU	
	Gas Pipe(mm)	Liquid Pipe(mm)
GMV-224WM/B-X	Φ 19.05	Φ 9.52
GMV-280WM/B-X	Φ 22.2	Φ 9.52
GMV-335WM/B-X	Φ 25.4	Φ 12.7
GMV-400WM/B-X	Φ 25.4	Φ 12.7
GMV-450WM/B-X	Φ 28.6	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.

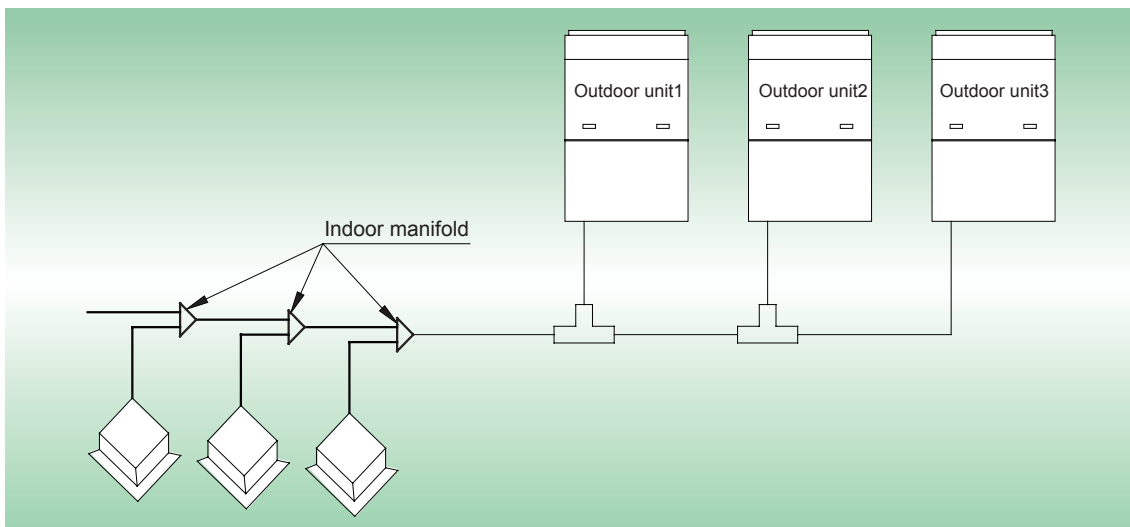


Total rated capacity of outdoor modules (multi-modular system)	Pipe between ODU and the first branch of IDU	
	Gas Pipe(mm)	Liquid Pipe(mm)
GMV-504WM/B-X	Φ 28.6	Φ 15.9
GMV-560WM/B-X	Φ 28.6	Φ 15.9
GMV-615WM/B-X	Φ 28.6	Φ 15.9

GMV-680WM/B-X	Φ 28.6	Φ 15.9
GMV-730WM/B-X	Φ 31.8	Φ 19.05
GMV-785WM/B-X	Φ 31.8	Φ 19.05
GMV-850WM/B-X	Φ 31.8	Φ 19.05
GMV-900WM/B-X	Φ 31.8	Φ 19.05
GMV-960WM/B-X	Φ 31.8	Φ 19.05
GMV-1010WM/B-X	Φ 38.1	Φ 19.05
GMV-1065WM/B-X	Φ 38.1	Φ 19.05
GMV-1130WM/B-X	Φ 38.1	Φ 19.05
GMV-1180WM/B-X	Φ 38.1	Φ 19.05
GMV-1235WM/B-X	Φ 38.1	Φ 19.05
GMV-1300WM/B-X	Φ 38.1	Φ 19.05
GMV-1350WM/B-X	Φ 38.1	Φ 19.05
GMV-1410WM/B-X	Φ 44.5	Φ 22.2
GMV-1460WM/B-X	Φ 44.5	Φ 22.2
GMV-1515WM/B-X	Φ 44.5	Φ 22.2
GMV-1580WM/B-X	Φ 44.5	Φ 22.2
GMV-1630WM/B-X	Φ 44.5	Φ 22.2
GMV-1685WM/B-X	Φ 44.5	Φ 22.2
GMV-1750WM/B-X	Φ 44.5	Φ 22.2
GMV-1800WM/B-X	Φ 44.5	Φ 22.2

5) Manifold at indoor unit side

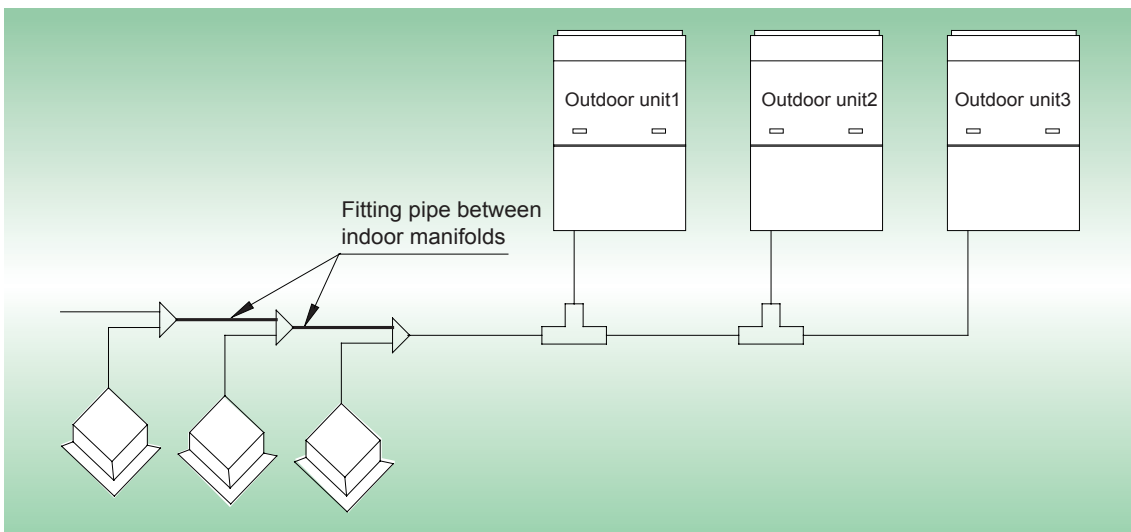
Manifold at indoor unit side can be selected as per total capacity of downstream indoor unit(s). Refer to the following table.



R410A Refrigerant System	Total capacity of downstream indoor unit(s) C (kW)	Model
Y-type Manifold	$C \leq 20.0$	FQ01A/A
	$20.0 < C \leq 30.0$	FQ01B/A
	$30.0 < C \leq 70.0$	FQ02/A
	$70.0 < C \leq 135.0$	FQ03/A
	$135.0 < C$	FQ04/A

6) Fitting pipe between manifolds

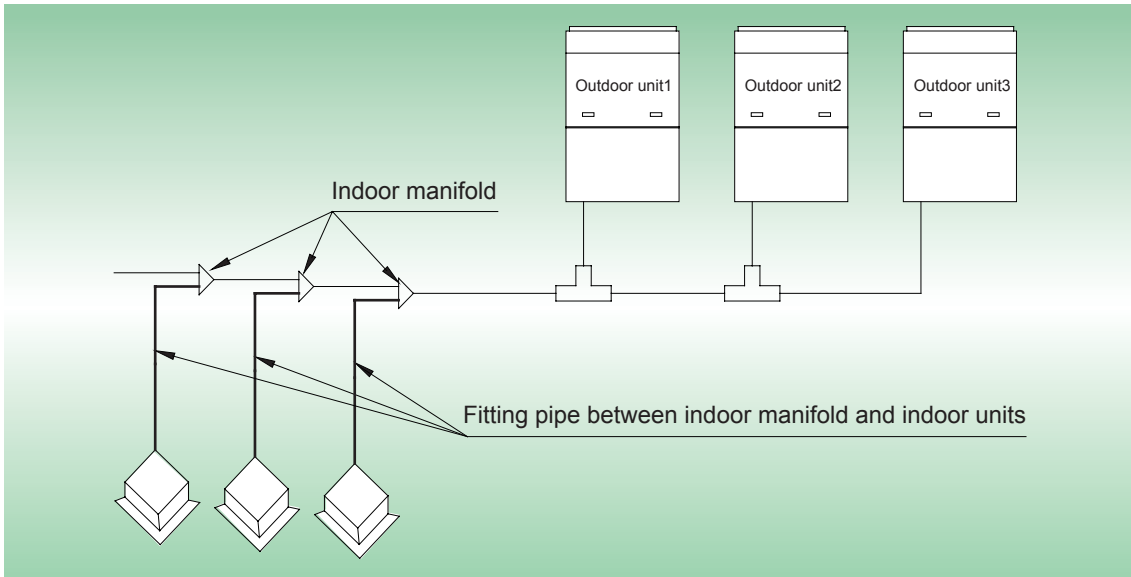
Pipe size (between two manifolds at indoor unit side) is based on the total capacity of upstream indoor unit(s).



Total capacity of downstream indoor unit(s) C(kW)	Dimension of the pipe of indoor branch	
	Gas Pipe(mm)	Liquid Pipe (mm)
$C \leq 5.6$	$\Phi 12.7$	$\Phi 6.35$
$5.6 < C \leq 14.2$	$\Phi 15.9$	$\Phi 9.52$
$14.2 < C \leq 22.4$	$\Phi 19.05$	$\Phi 9.52$
$22.4 < C \leq 28.0$	$\Phi 22.2$	$\Phi 9.52$
$28.0 < C \leq 40.0$	$\Phi 25.4$	$\Phi 12.7$
$40.0 < C \leq 45.0$	$\Phi 28.6$	$\Phi 12.7$
$45.0 < C \leq 68.0$	$\Phi 28.6$	$\Phi 15.9$
$68.0 < C \leq 96.0$	$\Phi 31.8$	$\Phi 19.05$
$96.0 < C \leq 135.0$	$\Phi 38.1$	$\Phi 19.05$
$135.0 < C$	$\Phi 44.5$	$\Phi 22.2$

7) Fitting pipe between indoor unit and manifold

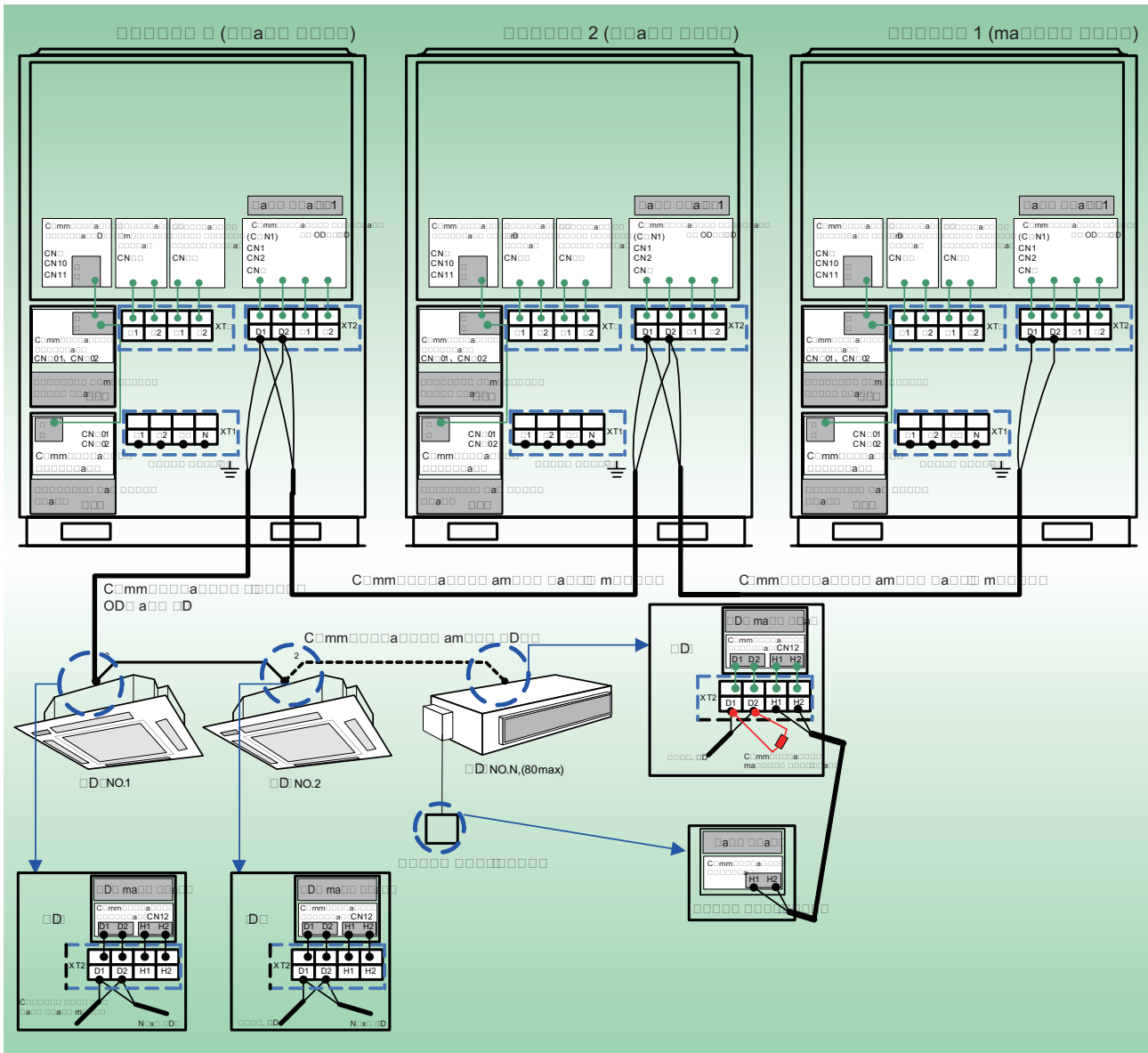
Manifold should be matched with fitting pipe of indoor unit.



Rated capacity of indoor unit C(kW)	Pipe between indoor branch and IDU	
	Gas Pipe(mm)	Liquid Pipe(mm)
$C \leq 2.8$	$\Phi 9.52$	$\Phi 6.35$
$2.8 < C \leq 5.0$	$\Phi 12.7$	$\Phi 6.35$
$5.0 < C \leq 14.0$	$\Phi 15.9$	$\Phi 9.52$
$14.0 < C \leq 16.0$	$\Phi 19.05$	$\Phi 9.52$
$16.0 < C \leq 28.0$	$\Phi 22.2$	$\Phi 9.52$

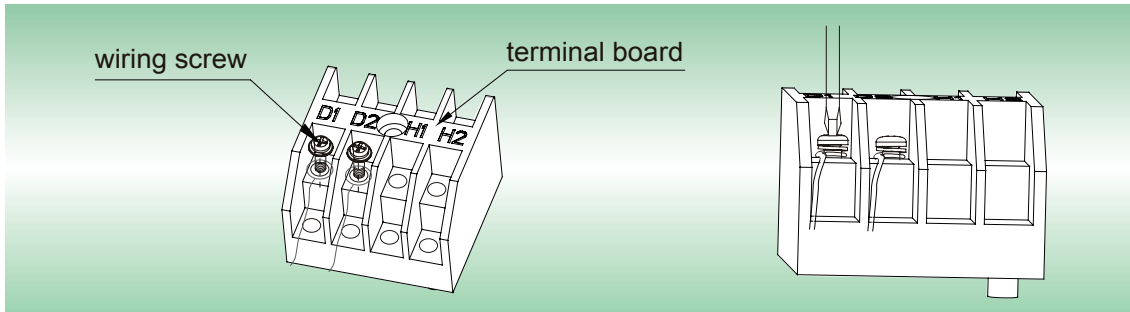
11 REQUIREMENTS FOR COMMUNICATION MODE

The GMV5 VRF unit air conditioning system adopts the CAN communication network. Manual dialling and differentiation of the communication cable polarity are not required for the indoor unit, and only functional dialling should be set for the indoor unit.



➔ 11.1 Connection Mode of Connection Line Terminals

All the communication connections of GMV5 are in the screw fastening mode.



➔ 11.2 Communication Cable Material and Wring Mode

11.2.1 Communication Material

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

Material Type	Total Length L(m) of Communication Cable between IDU Unit and (ODU) Unit L(m)	Wire size (mm ²)	Material Standard	Remarks
Light/Ordinary polyvinyl chloride sheathed cord. (60227 IEC 52 /60227 IEC 53)	L ≤ 1000	≥ 2 × 0.75	IEC 60227-5:2007	<ol style="list-style-type: none"> 1. If the wire diameter is enlarged to 2 × 1 mm², the total communication length can reach 1500m. 2. The cord shall be Circular cord (the cores shall be twisted together). 3. If unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.

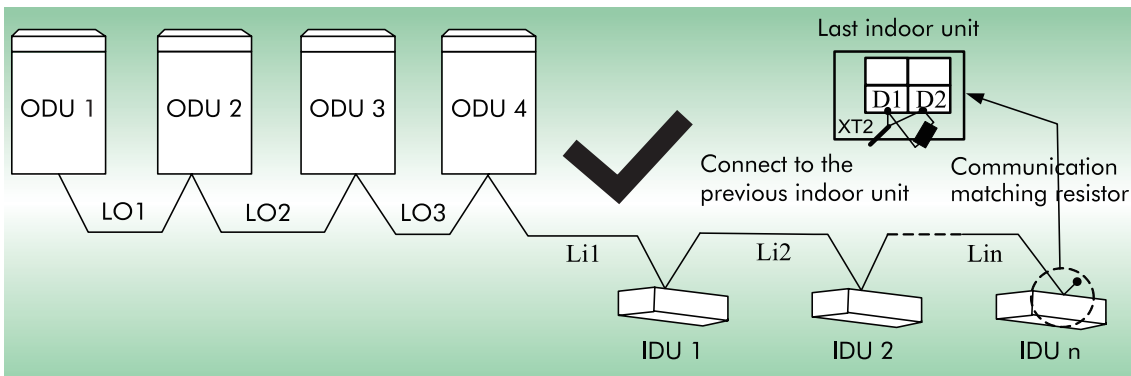
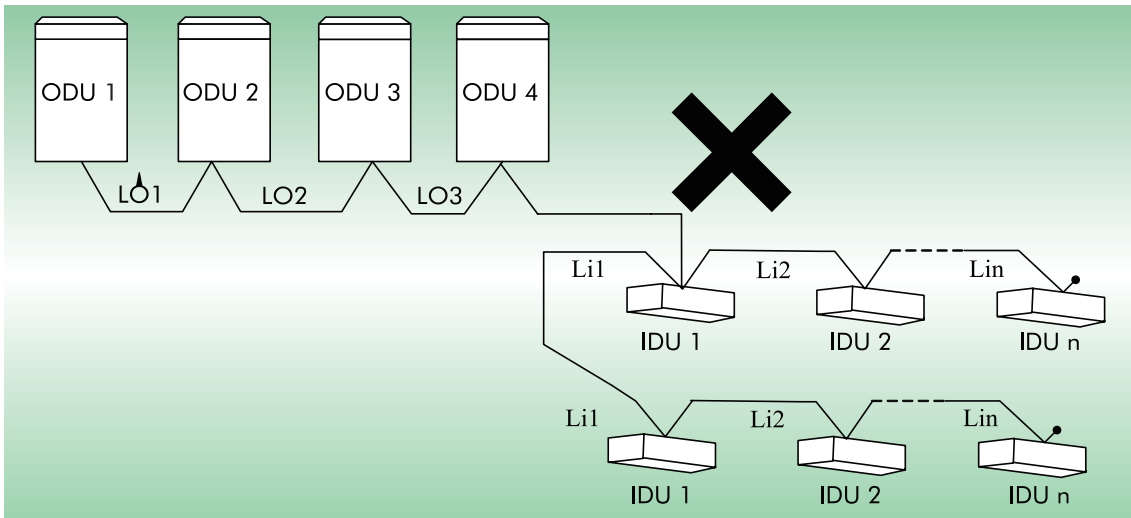
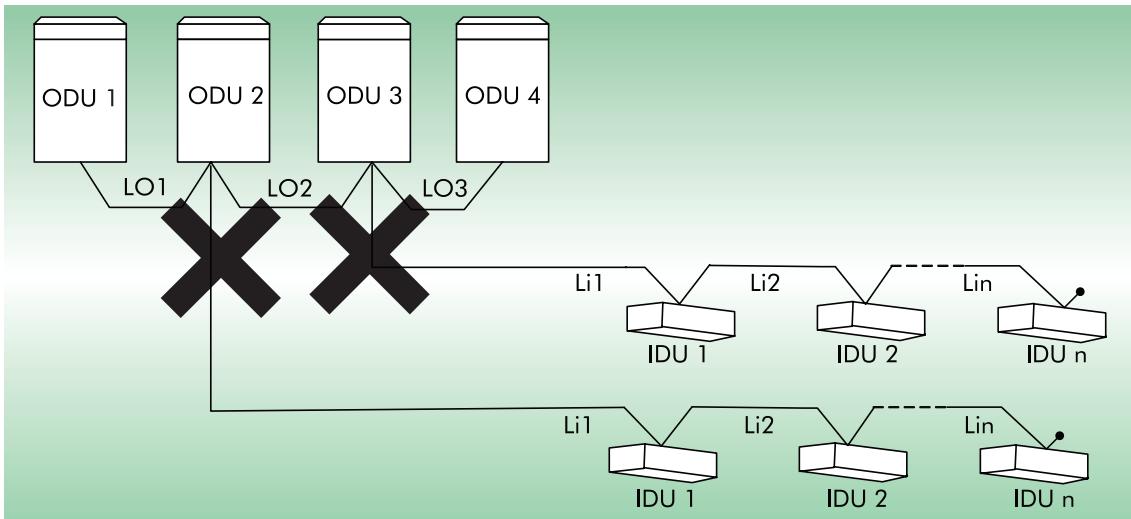
Module selection for the communication cable between the indoor unit and wired controller.

Material type	Total length of communication line between IDU unit and wired controller L(m)	Wire size (mm ²)	Material standard	Remarks
Light/Ordinary polyvinyl chloride sheathed cord. (60227 IEC 52 /60227 IEC 53)	L ≤ 250	2 × 0.75 ~ 2 × 1.25	IEC 60227-5:2007	<ol style="list-style-type: none"> 1. Total length of communication line can't exceed 250m. 2. The cord shall be Circular cord (the cores shall be twisted together). 3. If unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.

NOTES: If the air conditioning units are installed at a place with strong electromagnetic interference, a shielded cable must be used as the communication cable between the indoor unit and wired controller, and a shielded twisted pair must be used as the communication cable between the indoor unit and indoor (outdoor) unit.

11.2.2 Communication Access Mode

The communication bus of GMV5 indoor and outdoor units must be connected in series, and star connection is forbidden. The indoor unit at the end of the communication bus for the indoor units and outdoor units must be connected to a communication matching resistor (which is contained in the packing bag of the outdoor unit).

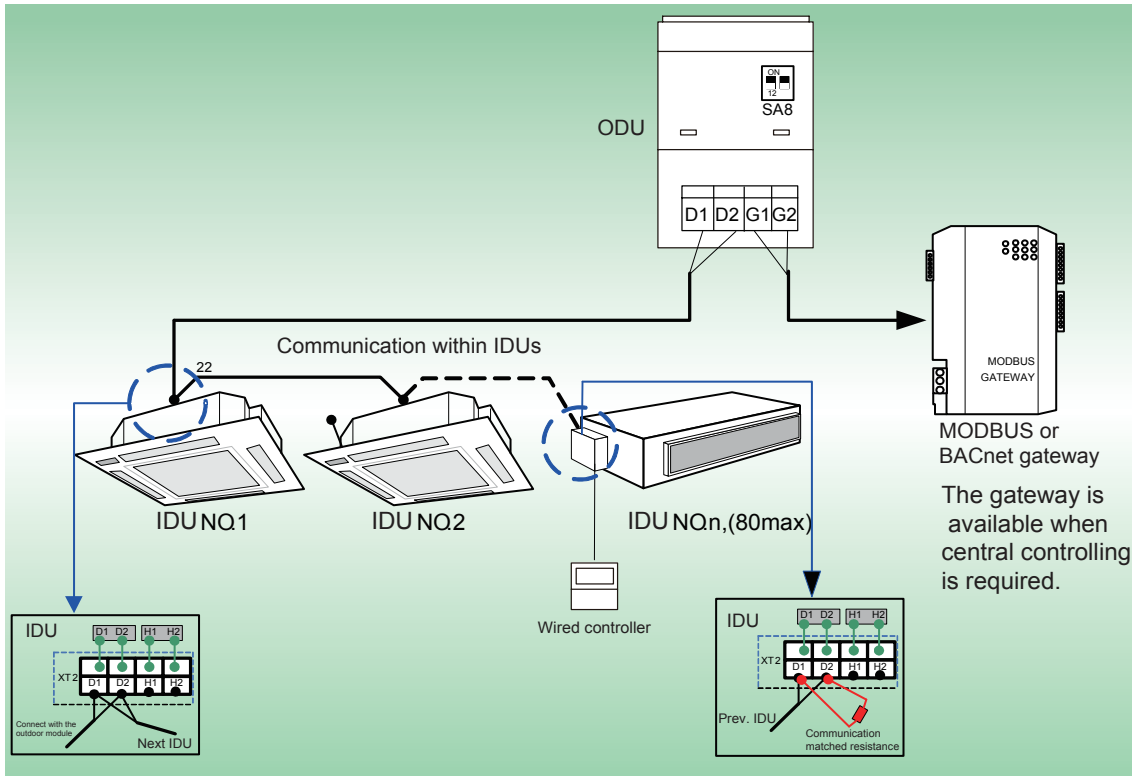


➔ 11.3 Connection Method and Procedure of Communication Cable

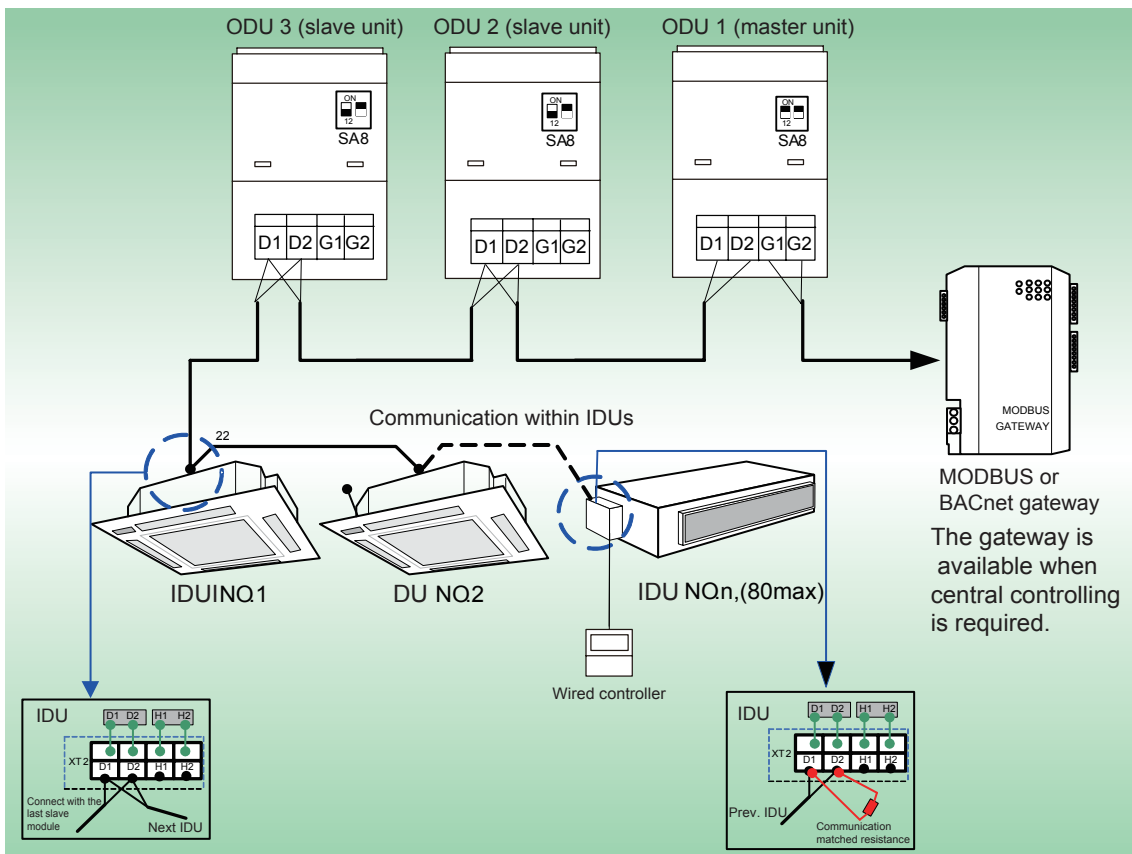
11.3.1 Communication connection between the indoor unit and outdoor unit

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 single module system



Communication connection mode of the multi-module system

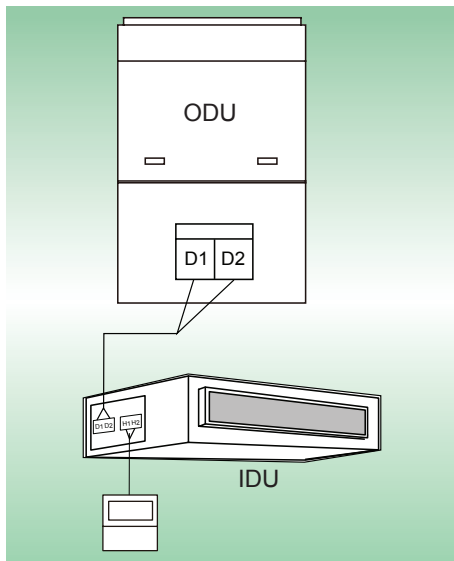


NOTES:

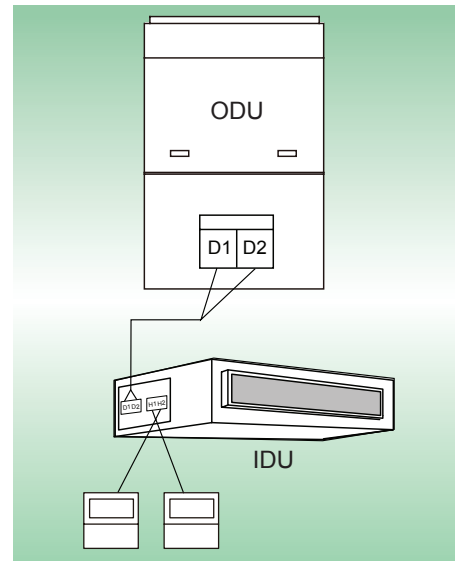
- a. For the modular outdoor unit, if multiple outdoor unit modules are available, the master unit must be the first outdoor unit module on the communication line and cannot be connected to any indoor unit (the master unit is set by SA8 of the main board for outdoor unit).
- b. For the modular outdoor 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).

11.3.2 Communication connection mode between the indoor unit and wired controller

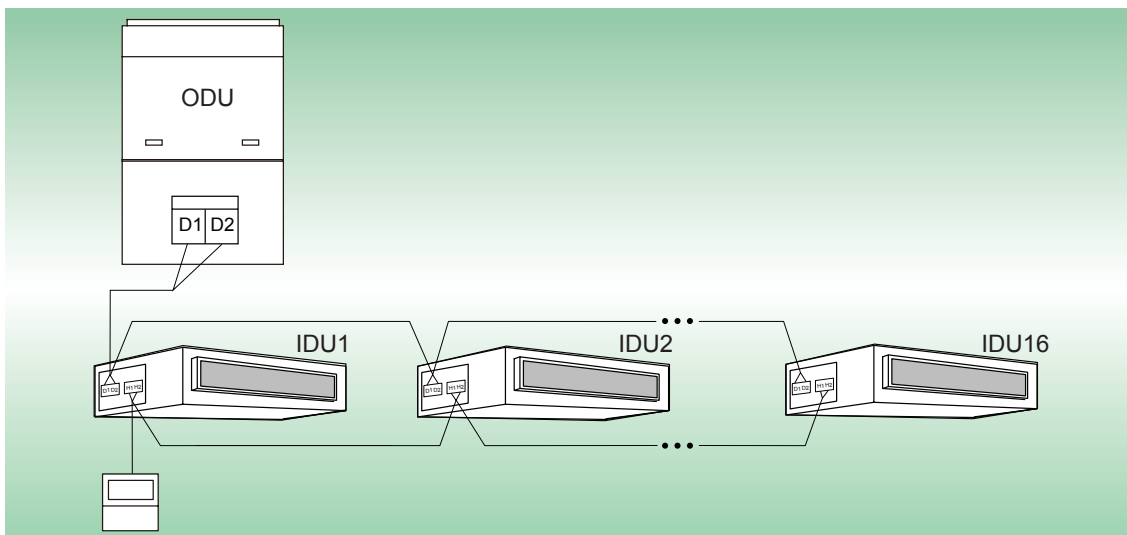
The indoor unit and the wired controller are connected in one of the following four modes, which are respectively shown in Figure below:



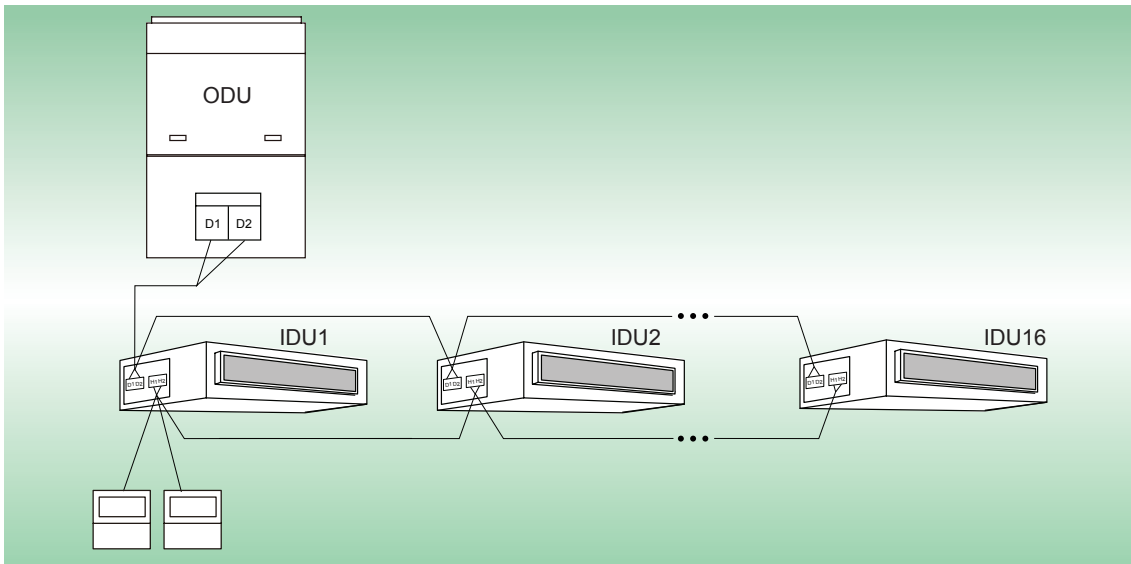
One wire controller controls one indoor unit



Two wire controllers control one indoor unit



One wire controller controls multiple indoor units



Two wire controllers control multiple indoor units

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.



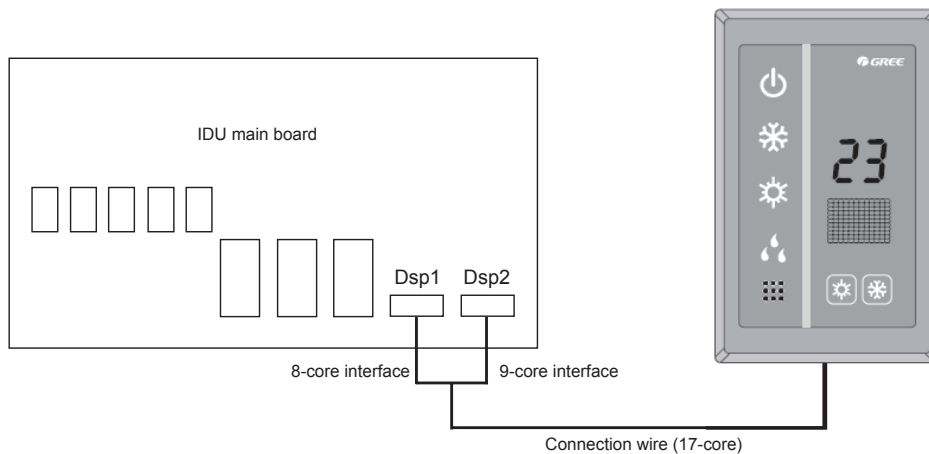
NOTES:

- 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.

11.3.3 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:

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

12 ELECTRICAL CONNECTION

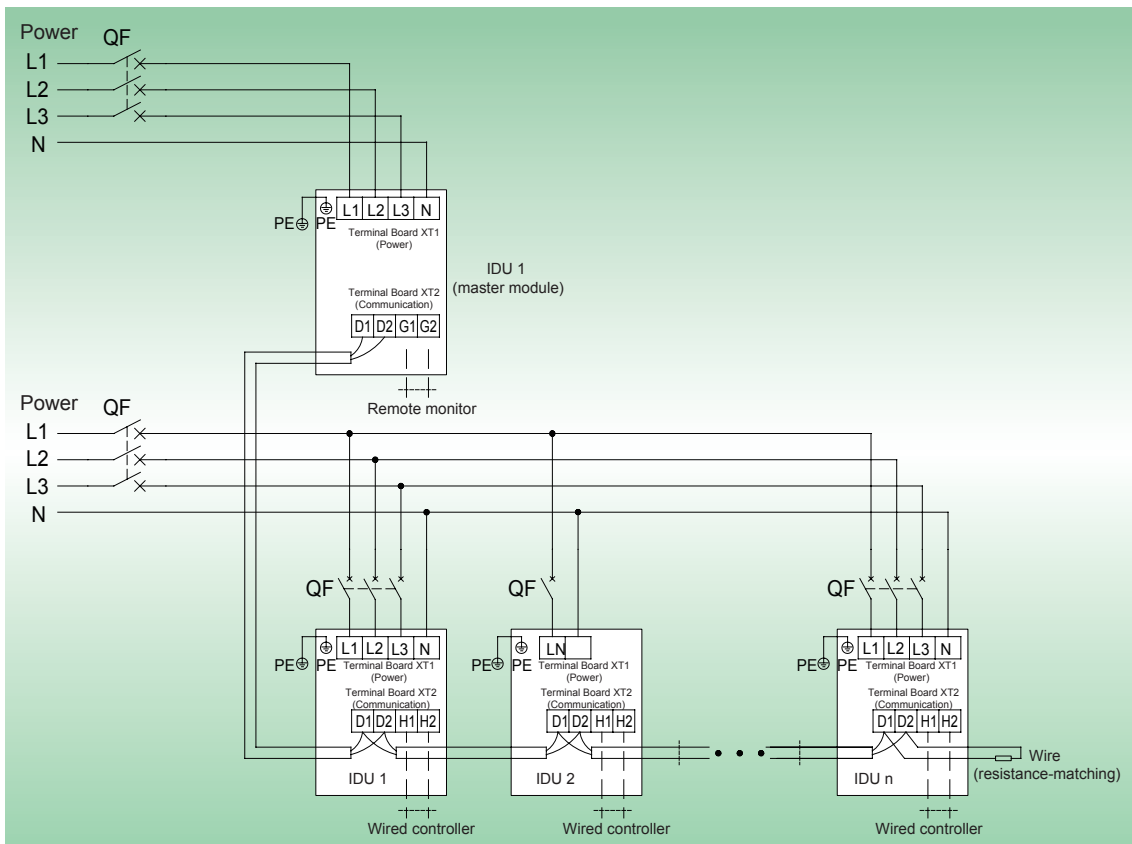
12.1 External Connection Interfaces

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

12.2 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.

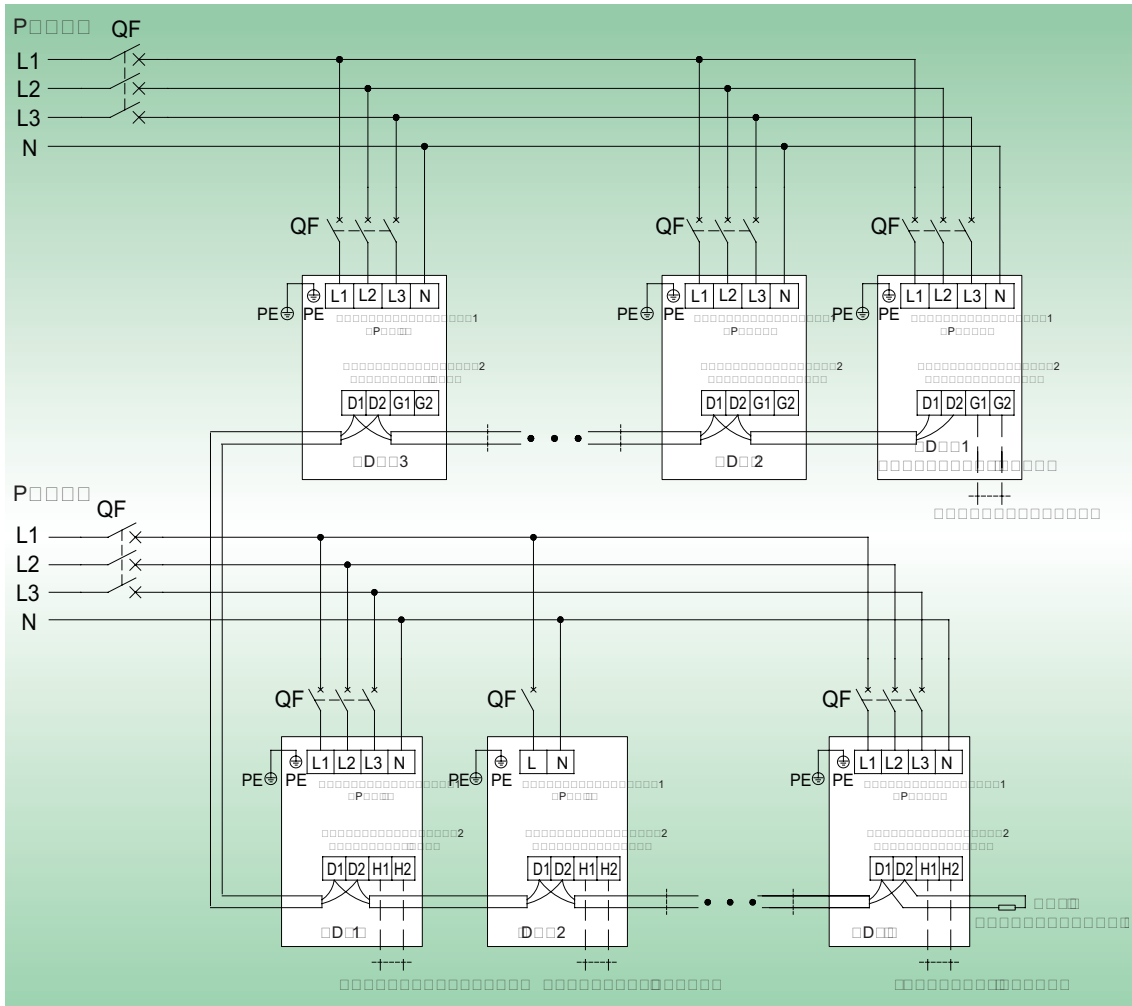
1) External connection diagram of a single unit



NOTES:

The maximum number n of connected indoor units depends on the outdoor unit capacity. For details, see the content of the introduction to unit combination.

2) External connection diagram of modular connection



NOTES:

- The maximum number N of connected outdoor units and the maximum number n of connected indoor units depend on the outdoor unit combination form.
- A copper conductor must be used as a power cable. It must comply with the relevant national lead standard and meet the current-carrying capacity requirement of the unit.

13 CALCULATION METHOD OF REFRIGERANT ADDED FOR ENGINEERING PIPING

Added refrigerant quantity R = Added refrigerant quantity A for piping + \sum Added refrigerant quantity B for each module

1) Added refrigerant quantity A for piping is calculated as follows:

Added refrigerant quantity A for piping

= \sum Liquid pipe length \times Added refrigerant quantity for each meter of liquid pipe

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

2) \sum Added refrigerant quantity B for each module is calculated as follows:

Added refrigerant quantity B for each module (2)		Module capacity (HP)				
Rated capacity configuration ratio C of outdoor/indoor unit (1)	Number of configured indoor units	8	10	12	14	16
50% ≤ C ≤ 70%	≤ 4 sets	0	0	0	0	0
	> 4 sets	0.5	0.5	0.5	0.5	0.5
70% < C ≤ 90%	≤ 4 sets	0.5	0.5	1	1.5	1.5
	> 4 sets	1	1	1.5	2	2
90% < C ≤ 105%	≤ 4 sets	1	1	1.5	2	2
	> 4 sets	2	2	3	3.5	3.5
105% < C ≤ 115%	≤ 4 sets	2	2	2.5	3	3
	> 4 sets	3.5	3.5	4	5	5
115% < C ≤ 135%	≤ 4 sets	3	3	3.5	4	4
	> 4 sets	4	4	4.5	5.5	5.5

NOTES:

a. Rated capacity configuration ratio C of outdoor/indoor unit = Rated refrigerating capacity sum of indoor units / Rated refrigerating capacity sum of outdoor units

b. If all the indoor units are GMV-NX series fresh air indoor units, the added refrigerant quantity B for every module is 0 kg.

Examples:

Example 1:

The outdoor unit consists of the three modules of GMV-280WM/B-X, GMV-400WM/B-X, and GMV-450WM/B-X, and the indoor units are eight GMV-N140PLS/A units.

Then, Rated capacity configuration ratio C of outdoor/indoor unit = $140 \times 8 / (280 + 400 + 450) = 108\%$, and the number of indoor units is greater than 4. The following results can be obtained by referring to the above table:

Added refrigerant quantity B for the GMV-280WM/B-X module is 3.5 kg.

Added refrigerant quantity B for the GMV-400WM/B-X module is 5.0 kg.

Added refrigerant quantity B for the GMV-450WM/B-X module is 5.0 kg.

Therefore:

\sum Added refrigerant quantity B for each module = $3.5 + 5.0 + 5.0 = 13.5$ kg

Suppose: Added refrigerant quantity A for piping
= \sum Liquid pipe length \times Added refrigerant quantity for each meter of liquid pipe = 25kg.
Total added refrigerant quantity R for this system = 25 + 13.5 = 38.5 kg.

Example 2:

The outdoor unit consists of one GMV-450WM/B-X module, and the indoor unit is one GMV-NX450P/A (X4.0) fresh air indoor unit. Then, the added refrigerant quantity B for this module is 0 kg.

Therefore:

\sum Added refrigerant quantity B for each module = 0 kg.

Suppose: Added refrigerant quantity A for piping
= \sum Liquid pipe length \times Added refrigerant quantity for each meter of liquid pipe = 5 kg.
Total added refrigerant quantity R for this system = 5 + 0 = 5 kg.

14 OPTIONAL COMPONENTS

The GMV5 series VRF units provide the following options:

		Model	Remarks
Manifold	Outdoor unit	ML01/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		JS03	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	Applicable to the air Cassette, Floor Ceiling, Wall-Mounted indoor unit (duct-type indoor unit Standard)
Wired controller for hotel		Wired controller XK49	With the access control function
Ultrathin wired controller		Wired controller XK62	
Colour screen wired controller		Wired controller XK55	
Smart zone controller		CE53-24/F(C)	
Debugging software		DE40-33/A(C)	Applicable to the unit of CAN bus communication technology
Remote monitoring system	Software	FC31-00/AD(BM)	Applicable to the unit of CAN bus communication technology
	Optoelectronic isolated converter	GD02	
	MODbus gateway	ME30-24/E4(M)	
	BACnet gateway	MG30-24/D2(B)	

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

15 UNIT OPERATING RANGE

Cooling	-5°C~52°C
Heating	-20°C~24°C

When the indoor units are all VRF fresh air processor, the unit operating range is as follows:

Cooling	16°C~45°C
Heating	-7°C~16°C

If the temperature is beyond the range, the safety protection measure of the unit may take effect, and the air conditioning unit will stop.

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