# AIR CONDITIONERS Gree GMV5 Mini VRF

YEAR

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Katt.



#### Gree DC Inverter GMV5 Mini VRF

The Gree DC Inverter GMV5 Mini is a flexible solution for central air conditioning systems in different building types. The compact design of the outdoor units makes installation easier. Coupled with a wide variety of indoor units and controls you have a flexible alternative to standard central type ducted or water chiller type equipment.

The GMV5 Mini ranges from the single fan 8kW to the double fan 16kW outdoor unit. These units can be transported in a standard elevator eliminating the need for cranes or hi-abs. GMV5 Mini with sub cooling control technology can operate reliably with up to 300m of total piping. CAN bus communication offers non-polar, high anti-interference communication on standard cable, no need for specialised shielded wire.

The GMV5 generation uses high performance compressors which greatly improves energy efficiency while maintaining quiet levels of noise during operation. Compressors are designed to operate normally in a wide temperature range thus reducing power loss and maintaining a high performance level.

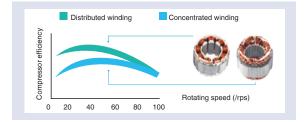
#### High Performance Compressors

All DC Inverter compressors with high pressure chambers, this helps improve the volumetric efficiency of the compressor.



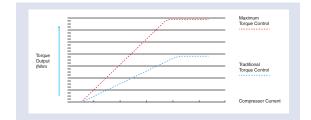
#### **High Efficient Motors**

High efficient permasyn motors are used to provide better performance than traditional DC inverter compressors. Permasyn motors use concentrated windings rather than distributed windings.



#### Maximum Torque Control

Improved motor windings help reduce energy losses which allows higher motor torque while controlling the current draw.



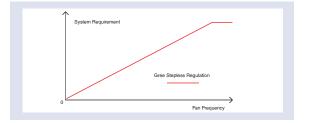
#### 180° Sine Wave DC Speed Varying Technology

By collecting the motor feedback signal and then mapping this we produce a smoothed completed 180° sinewave, improving efficiency over the traditional 120° wave.



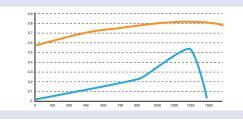
#### Low Frequency Torque Control

Assists with controlling the fan motor at low speed. Users are more comfortable, while the requirements of the system are achieved.



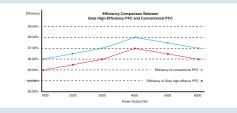
#### Sensor less DC Inverter Fan Motor

This allows for step less speed regulation from 5Hz to 44Hz. Compared to traditional inverter motors, this uses less power. Sensor less technology guarantees lower noise, less vibration and steadier operation.



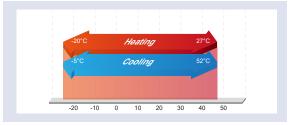
#### High Efficient Digital PFC

A High Efficient Digital PFC saves about 1% over a conventional PFC.



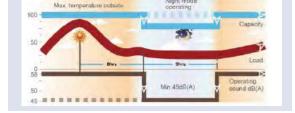
#### Wider Operation Condition Range

Adopting the sensor less fan motor gives us greater control over high pressure. This allows us to operate in wider ambient conditions, -5°C to 52°C in cooling and -20°C to 27°C in heating.



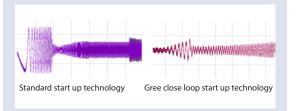
#### Low Noise Outdoor

The outdoor unit noise can be as low as 45dB(A) thanks to noise optimised design of the fan and compressor system.



#### Compressor Closed Loop Start-up Technology

A closed loop start up protocol is used, this limits the start up current and makes the start up more reliable.



#### High Anti-interference Ability

The latest CAN bus communication technology is adopted. With non-polar communication and high antiinterference abilities there is no need to use a shielded cable, thus reducing installation costs



# Indoor Units

#### **Duct Type**

These units are concealed in the ceiling space. They are ideal for hotel rooms, offices or other smaller spaces.

Cooling Capacity: 2.2 – 8 kW Heating Capacity: 2.5 – 9 kW Static Pressure: 30-200 Pa



#### **Compact Cassette**

Cassette units are perfect for larger spaces where several can be installed. They also have the added advantage of conditioned air being directed in all directions for even airflow.

Cooling Capacity: 2.8 - 8 kW Heating Capacity: 3.2 - 9 kW

#### Wall Mounted Type

Wall mounted units are a good choice where ceiling space or installation costs are limited. They can be placed anywhere there is a suitable wall in the room.

Cooling Capacity: 2.2 - 8 kW Heating Capacity: 2.5 - 9 kW

## Floor Console

The Gree Floor Console offers an alternative option for home cooling and heating. It can be recessed into a wall and is an ideal replacement for a traditional home fire.

Cooling Capacity: 2.5 - 5.6 kW Heating Capacity: 2.8 - 6.3 kW



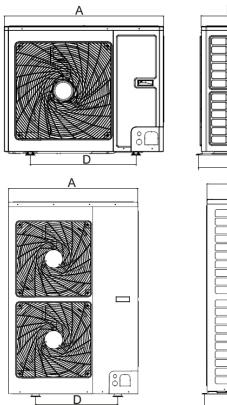


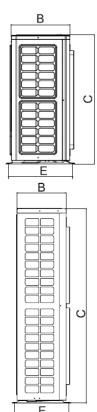




# **Outdoor Unit Dimensions**

Model	A	В	с	D	E	OD Fan
GMV-80 / 100	980	360	790	650	395	1
GMV-120 / 140	940	460	820	610	486	1
GMV-160	900	340	1345	572	378	2





### **Controls**

	Туре	Model	
Dava sés		YAP1F	
Remote		YV1L1	
Wired Wall Controller	Standard	ХК46	
	Hotel	ХК49	1000 (1000) 1000 (1000) 1000 (1000)
	Colour Screen	ХК55	26.0
Central Controller	GMV5 Central Control	CE52-24 /F(C)	
	Smart Zone Control	CE53-24 /F(C)	

# **Branch Joint**

	Model	Branch Joint Kit	Appearance		
Y-Shape Branching Joint	GMV-80WL/A-K				
	GMV-100WL/A-K		Y-shape to other branching branching joint Outlet 1		
	GMV-120WL/A-K	FQ01A	branching joint Outlet 1 joint or indoor unit		
	GMV-140WL/A-K		ODU Outer 2 pipes used in the field		
	GMV-160WL/A-K				

# Installation Information

Max piping length is 300m Slim and compact outdoor unit for easy handling Non-polar, non-shielded communication cable up to 1500m Selectable low noise mode for night setback Powerful commissioning software available Key card enabled (XK49) BMS compatible **Indoor Units** 

Various kinds of indoor units line-up for your different requirement

Capacity kW Cooling/Heating	2.2 / 2.5	2.8 / 3.2	3.6 / 4.0	4.5 / 5.0	5.0 / 5.6	6.3 / 7.1	7.1 / 8.0 (wall mounted: 7.1 / 7.5)	8.0 / 9.0
Duct type indoor unit GMV-ND **PLS/C-T	•	•	•	•	•	•	•	•
Wall-mounted type indoor unit GMVD-ND**G/B4B-T	•	•	•	•	•	•	•	•
360° Air Discharge Cassette Indoor Unit		•	•	•	•	•	•	•
Console	•	•	•	•	•			

Model			GMV-80WL/A-T	GMV-100WL/A-T	GMV-120WL/A-T	GMV-140WL/A-T	GMV-160WL/A-T		
	Cooling	kW	8	10	12.1	14	16		
Capacity	Heating	kW	9	11	14	16.5	18		
EER W/W			3.90	3.70	3.99	3.90	3.37		
СОР	COP W/W			4.40	4.28	4.18	3.87		
Power Supply V/Ph/Hz			220~240V / 1Ph / 50Hz						
Max circuit		А	25	25	32	40	40		
Power	Cooling	kW	2.05	2.70	3.03	3.59	4.75		
Consumption	Heating	kW	1.90	2.50	3.27	3.95	4.65		
Max IDU Unit			4	5	7	8	9		
Refrigerant R410a	Refrigerant R410a kgs			2.4	3.3	3.3	3.3		
SPL dB(A)			56	56	57	58	58		
Connecting Pipe	Liquid	mm	9.52	9.52	9.52	9.52	9.52		
	Gas	mm	15.9	15.9	15.9	15.9	19.05		
Dimensions (HxWxD) mm		790*980*360	790*980*360	820*940*460	820*940*460	1345*900*340			

Rating Conditions to AS/NZS 3823

Cooling – Indoor 27°C Dry Bulb, 19°C Wet Bulb, Outdoor 35°C Dry Bulb Heating – Indoor 20°C Dry Bulb, Outdoor 7°C Dry Bulb, 6°C Wet Bulb

Note: Above parameters are for reference only. Actual parameters may vary.

