GMV5 Mini & Slim

Key Features

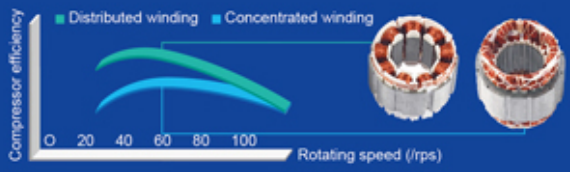
All DC Inverter Technology to Improve Compression Efficiency

All DC inverter compressor and high-performance high pressure chamber are adopted to reduce loss of overheat and improve compression efficiency from direct intake. Compared with low pressure chamber, the compression efficiency is improved. High-efficient permasyn motor is adopted to provide better performance than traditional DC inverter compressor.

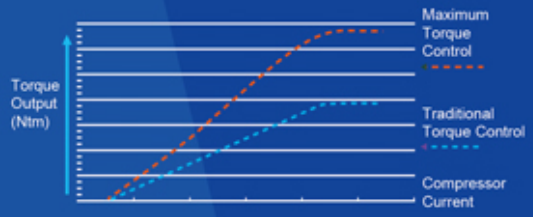
All DC Inverter Compressor

- All DC inverter compressor is used in this system. It can directly intake gas to reduce loss of overheat and improve efficiency.

- High-efficient permasyn motor is adopted to provide better performance than traditional DC inverter compressor.

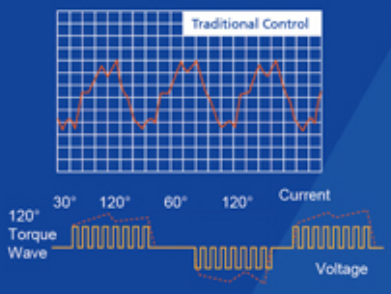


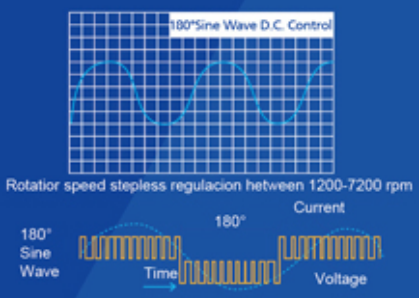
- **Technology of Maximum Torque TControl with Minimum Current**
  It can reduce energy loss caused by device winding so as to realize higher efficiency.



- **Low-frequency Torque Control**
  It can directly control motor torque, through which fan motor can run at a low speed. Users will feel more comfortable while requirements of the system are also met.

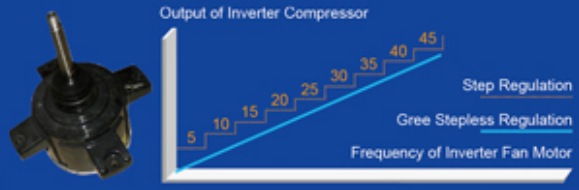
- **180° Sine Wave DC Speed Varying Technology**
  It can satisfy various places' demands for different temperature and is able to save a great deal of electricity and provide users with utmost comfort at the same time.



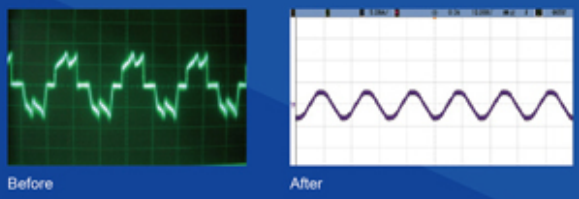


Sensorless DC Inverter Fan Motor

- Stepless speed regulation ranges from **5Hz** to **44Hz**.Compared with traditional inverter motors, the operation is more energy-saving.

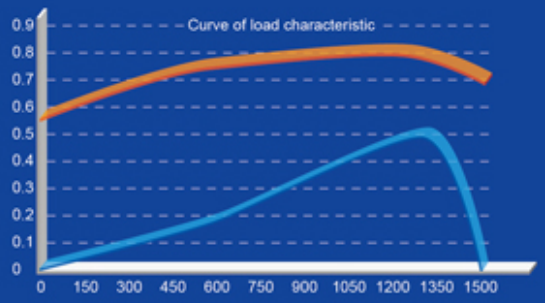


- Sensorless control technology guarantees lower noise, less vibration and steadier operation.



Sensorless DC Inverter Fan Motor

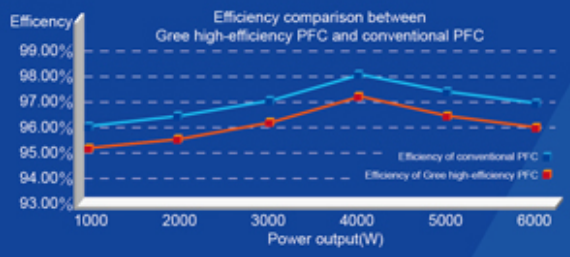
The indoor unit adopts high-efficiency brushless DC motor. Compared with conventional motor, the efficiency of brushless DC motor is improved by more than **30%**. Meanwhile, the design of evaporation capacity flow is optimized through emulation software of refrigeration system and the heat exchange amount of evaporator is greatly improved.



High-efficiency Digital PFC Control *

High-efficiency PFC control technology is adopted with efficiency improved by about 1% compared with conventional PFC. For the air conditioner with rated power of 5kW, **50W** of electricity can be saved every hour and **1.2kW** of electricity can be saved every day.

*This feature is applicable for GMV5 Mini only.



Wider Operation Condition Range

The unit adopts DC motor with more accurate high pressure control, which effectively solves the high pressure control problem in low a mbient temperature cooling. So the operation range in cooling is wider.

Company A	Gree GMV5 Mini	Gree GMV5 Slim
Cooling:10~48°C Heating:-20~27°C	Cooling:-5~48°C Heating:-20~27°C	Cooling:-5~50°C Heating:-20~27°C

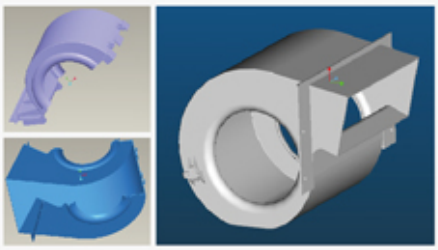
Comfortable and Quiet Mode

Low Noise of Outdoor Unit

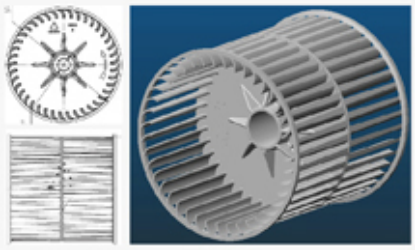
- The advanced sub-cooling control technology is applied to reduce the liquid flow noise of indoor unit in cooling operation.
- Noise of outdoor unit can be as low as 45dB thanks to noise optimized design or fan system and compressor system, and multiple kinds of quiet modes of outdoor unit.

Low Noise of Indoor Unit

- The pioneering and patented high-efficiency centrifugal fan blade and low-noise volute are adopted. Meanwhile, the imported silent valve is adopted to reduce noise of entire unit as low as 22db(A).



- By adopting the optimal inlet angle of centrifugal fan blade and optimal diameter ratio between internal and external circles of impeller, the air volume is increased and fan noise is decreased greatly.



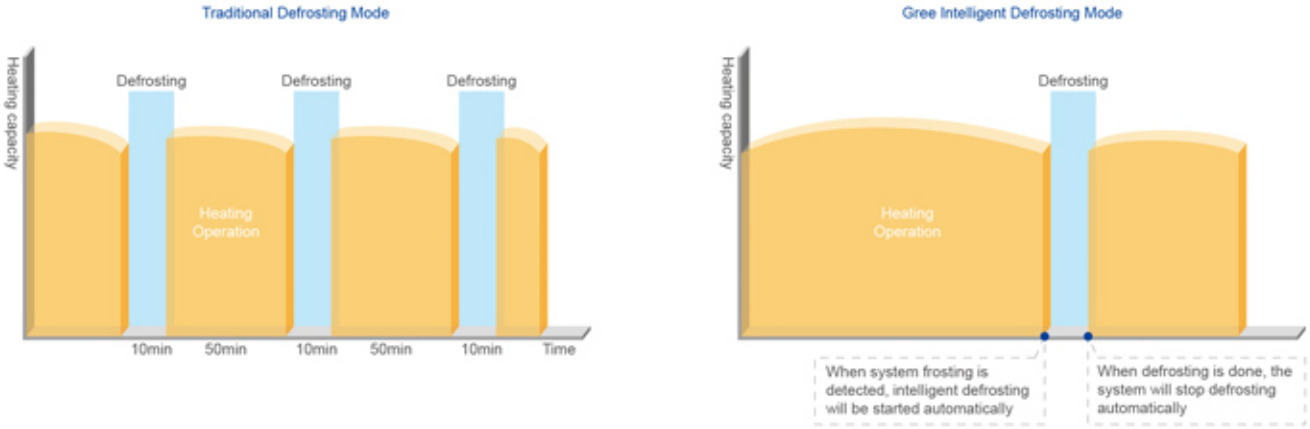
- The advanced supercooling control technology and the oil-return technology under heating mode has efficiently solved the problem of liquid flow noise of indoor unit , which improved the sound quality of indoor unit.

Intelligent Temperature Control Technology

Intelligent temperature control technology is adopted for super fast cooling or heating, so that indoor temperature will reach set temperature more quickly.

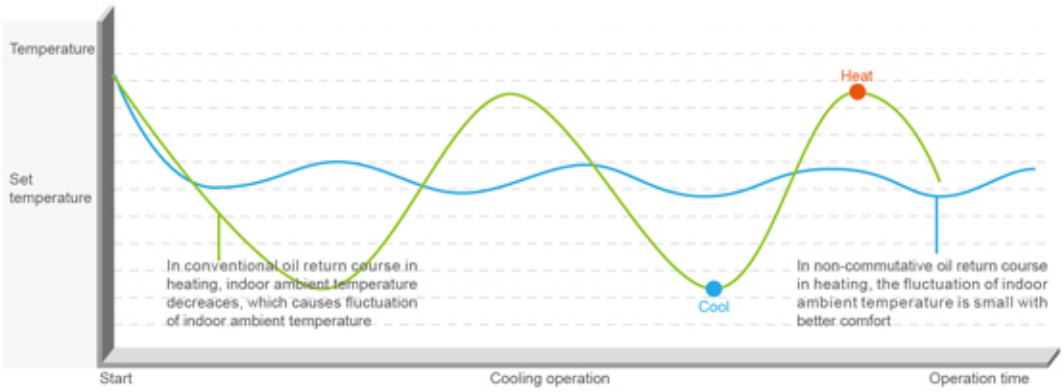
Comfortable Heating

Advanced intelligent defrosting mode is adopted. Gree advanced intelligent defrosting mode will choose the best defrosting way according to outdoor temperature and operation status to realize intelligent defrosting, effectively improving heating effect and performance. While in traditional defrosting mode, timing defrosting is adopted, which not only affects comfort but also reduces energy efficiency.



Non-commutative Oil Return Technology in Heating

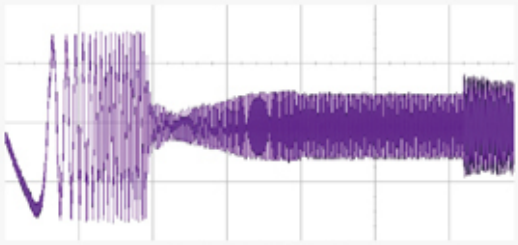
The unit can achieve non-commutative oil return in heating when outdoor ambient temperature is within 0~20°C. Thanks to this technology, indoor ambient temperature is more stable and comfort is improved in heating mode.



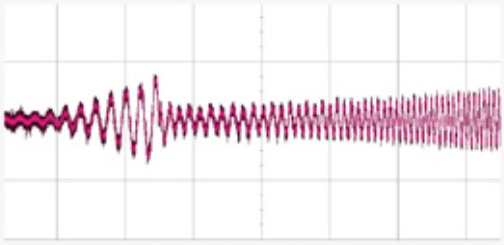
Reliable Operation

Compressor Closed-loop Startup Technology with More Reliable Startup

The self-innovative closed-loop startup control technology is adopted. Thanks to this technology, the startup current is small and startup is more reliable.



Conventional startup mode



Gree closed-loop startup mode

High Anti-interference Ability

The latest CAN bus communication technology is adopted, with non-polar communication and high anti-interference ability. Common communication wire can meet the communication demand with no need of specialized shielded wire. The customers can buy the communication wire by themselves, greatly reducing installation difficulties.

Advanced High-frequency Transformer with More Stable Voltage

- The advanced switching power supply is adopted with lower power consumption and higher power efficiency.
- Wide voltage-regulation range ensures stable voltage output when the voltage of grid fluctuates.
- Compared with conventional transformer, the size of high-frequency transformer is small and the weight is light.

Linear power supply
(Linear inverter
+
Voltage-regulation chip)

Switching power supply
(High-frequency inverter
+
Switching chip)

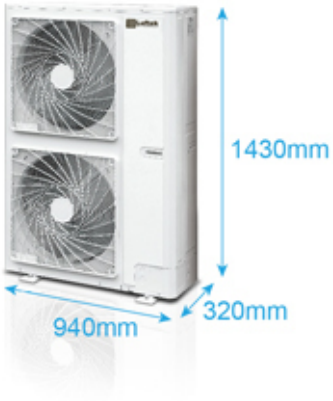
Ultra-long Connection Pipe for More Convenient Connection

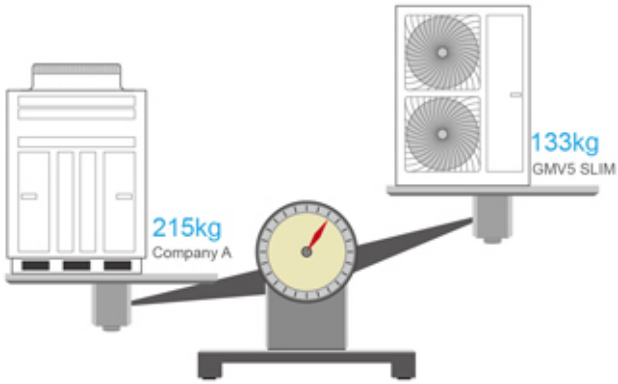
Under the subcooling control technology gained by adding subcooler, the indoor unit and outdoor unit ofGMV5 mini can operate reliably with longer connection pipe.

	 Company A	 Gree GMV5 Slim	 Gree GMV5 Mini
Total piping length	150m	300m	300m
Equivalent piping length	70m	100m	150m

Top Advanced Light and Compact Size

GMV5 slim adopts small and compact size design. The dimension of the unit is 1430(H)×940(W) ×320(D). Compared with the normal product with the same capacity, size and weight are reduced a lot.





Easy Installation with Lower Construction Cost

The outdoor unit of GMV5 slim is with small size and light weight. No need fork lifter and crane for movement and installation

Movement by Stairs and Elevator

The outdoor unit of GMV5 slim is with compact and small size for saving space and easy movement. It can be carried by elevator or stairs.

GMV5 Mini & Slim Line Up

Slim Line up

HP	Model	Product Outlook
7	GMV-H200WL/A-X	
8	GMV-H224WL/A-X	
9	GMV-H250WL/A-X	
10	GMV-H280WL/A-X	
11	GMV-H308WL/A-X	
12	GMV-H335WL/A-X	

Slim

50/60 Hz

Model			GMV-H200WL/A-X*2	GMV-H224WL/A-X*2	GMV-H250WL/A-X*2	GMV-H280WL/A-X*2	GMV-H308WL/A-X*2	GMV-H335WL/A-X*2
Capacity range		HP	7	8	9	10	11	12
Capacity	Cooling	kW	20.0	22.4	24.5	28.0	30.8	33.5
	Heating	kW	22.4	25.0	26.0	31.5	33.9	37.5
EER		W/W	3.1	3.1	3.1	2.97	2.99	3.04
COP		W/W	4.0	4.1	3.7	3.66	3.59	3.60
IPLV	Cooling	kW/kW	6.1	6.1	6.0	6.0	6.0	6.0
Power supply		V/Ph/Hz	380-415~3Ph~50/60Hz					
Max. Circuit/Fuse Current		A	25	25	25	25	25	25
Power comsumption	Cooling	kW	6.5	7.2	8.0	9.4	10.3	11.0
	Heating	kW	5.6	6.1	7.0	8.6	9.6	10.4
Maximum drive IDU NO.		unit	12	13	15	17	18	20
Refrigerant Charge volume		kg	5.5	5.5	6.0	7.5	8.0	8.0
Sound pressure level	Cooling	dB(A)	57	58	59	59	59	60
	Heating	dB(A)	58	59	60	60	60	61
Connecting pipe	Liquid	mm	Φ9.52	Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7
	Gas	mm	Φ19.05	Φ19.05	Φ19.05	Φ25.4	Φ25.4	Φ25.4
Dimension (W*D*H)	Outline	mm	940*320*1430	940*320*1430	940*320*1430	940*460*1615	940*460*1615	940*460*1615
	Package	mm	1033*433*1580	1033*433*1580	1033*433*1580	1033*573*1765	1033*573*1765	1033*573*1765
Net weight/Gross weight		kg	133/144	133/144	133/144	160/175	165/180	175/185
Loading quantity	40' GP	set	54	54	54	44	44	44
	40' HQ	set	54	54	54	44	44	44

Note:

① Testing conditions of rated cooling capacity: indoor 27℃DB/19℃WB, outdoor 35℃DB, connection pipe length of 5m, no height difference between units.

② Testing conditions of rated heating capacity: indoor 20℃DB, outdoor 7℃DB/6℃WB, connection pipe length of 5m, no height difference between units.

③ The total indoor unit capacity shall be within 50% to 130% of outdoor unit capacity. Correction of other parameters can be referred to the unit capacity correction sheet.

④ The above-mentioned parameters are tested with standard connection pipe length. In actual engineering, please arrange correction according to the capacity correction with long connection pipe.

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