



**GREE**  
AIR CONDITIONER

# *Modular Air Cooled Scroll Chillers*



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65

80

130

160

249

**2** GREE  
YEAR  
WARRANTY





### ***Gree Modular Air-Cooled Scroll Chiller***

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Gree D Series Air-cooled Scroll Chillers are suitable for a wide range of applications. With the additional advantage of being able to reverse cycle they can be used for cooling in summer and heating in winter. Gree chillers can be installed in new builds or retrofitted to existing buildings such as hotels, apartments, restaurants, office buildings, shopping malls, theatres, gyms, workshops, hospitals and any other place where cooling or heating is required.

Remove the limitations placed on you by other systems. By having the refrigeration plant in one compact package, Gree Water chillers don't restrict the length of your pipe runs like other air conditioning systems do. By using pumped water you can transfer heat over much greater distances. You also have the advantage of not having to worry about your compressors being starved of oil due to poor design or installation.

The safety of your building occupants is paramount. For applications where you have refrigerant based systems such as VRF. You must ensure that if there is a leak in the air conditioning system the concentration of refrigerant in the room does not exceed calculated limits. This is particularly of concern in buildings containing smaller rooms such as hotels and offices.

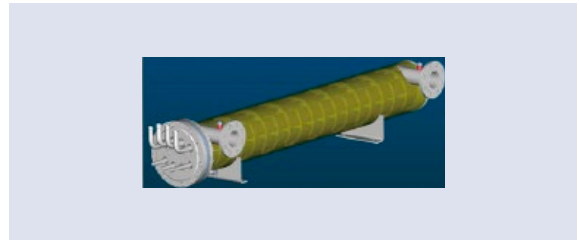
Save money by using less refrigerant! When compared to many VRF system installs (depending on pipe lengths) Gree Water Chillers use less refrigerant. The units come pre charged and as the refrigeration plant is fully contained in the unit no additional refrigerant is required.

\*Note: Gree Chillers can also be used for process cooling applications. Please contact Gree for more information about process cooling products.

### ***High Efficiency Shell and Tube Heat Exchanger***

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The Gree D Series Chillers utilise high efficiency shell and tube heat exchangers. Internal baffles ensure the water mixes thoroughly in the heat exchanger to achieve a higher rate of heat transfer. Gree D series shell and tube heat exchangers provide advantages over other types of heat exchangers. The tube spacing virtually eliminates clogging due to foreign matter from poor water quality or scaling.



### ***Compressor Operation Balance***

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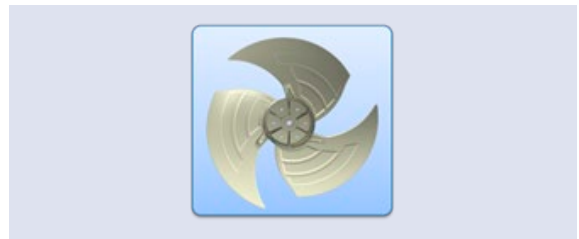
The Gree D Series compressor operation balance technology ensures that each compressor operates in turn. This reduces the number of stop/start cycles on an individual compressor to maximise their lifespan.



### ***Low Noise Fans***

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The Gree D Series Chillers come with high efficiency low noise fan blades designed and manufactured by Gree specifically for these units. These fan blades have been designed using Computational Fluid Dynamics simulation. The blades have been matched with motors and dynamic blade running tests conducted to ensure the motors and fan blades match perfectly. This method of design results in optimised blade shape and lower operating noise.



### ***Free Master Module Design***

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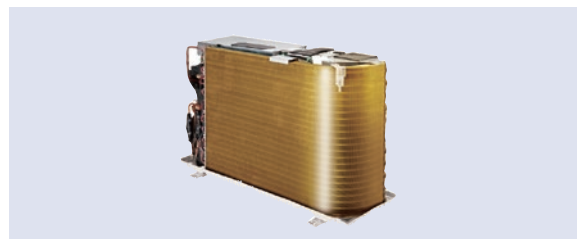
Any unit can operate as the master when connected to the wired controller. This overcomes the problem where if a master unit were to fault, the entire system would then shut down. With Gree D Series water chillers if one unit faults the others will continue to run to ensure the cooling is not interrupted.



### ***Gold Fin***

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The new Gree D Series Chillers feature Gold Fin coating on the air cooled coil. This offers greater resistance to corrosive elements. Gold fin coils perform 20x better under salt spray testing than Blue Fin Coils. Gold Fin is a hydrophobic coating which repels water. As a result it improves the efficiency by accelerating the defrost process (when the unit is used for water heating).



### Advanced Protection Functions

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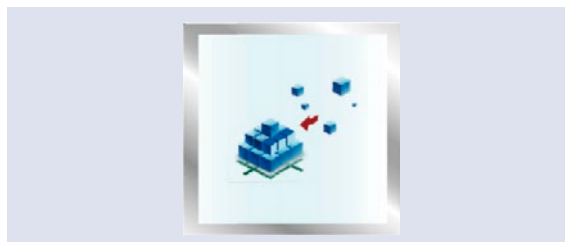
The Gree D Series Chillers are equipped with an advanced microcomputer control system complete with powerful error diagnostics. Some of the main protection functions are:

- Compressor HP
- Compressor LP
- Compressor overload
- Anti-freezing
- Overheating
- Water flow protection
- Temperature sensor failure
- High discharge temperature
- Phase sequence

### Flexible Capacity

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With the Gree D Series Chillers you can combine different capacity units to achieve your required cooling or heating duty. Combine up to 16 of the 65 and 80kW models and for the 130, 160 and 249 models combine up to 8 modules to achieve a massive ~1,992kW of cooling capacity. (2,200kW Heating)



### Gree CF61 Microprocessor Controller

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This control panel has been especially designed for the D Series large Capacity modular air cooled scroll chillers. It is capable of controlling and displaying all running parameters of the chiller.



### Gree Intelligent Management System

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Your Gree D Series Chillers are not only capable of long distance monitoring and management. They can also be integrated into a central Building Management System via ModBus communication protocol. This is achieved by using the BACnet(RS485) interface supplied by Gree.

Please note communication modules must be ordered separately as they do not come standard with the chiller



### Environmentally Friendly

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Gree D Series chillers use environmentally friendly R410a which has zero ozone depletion potential. It also has low global warming potential and is non-toxic. By choosing Gree chillers you reduce the amount of refrigerant charge required when compared with VRF systems.





# Indoor Units

A range of indoor units are available to suit your Gree D-Series water chiller. Gree water chillers are also compatible with third party indoor and fan coil units.

Gree Indoor units are an indent item. Please contact Gree for availability

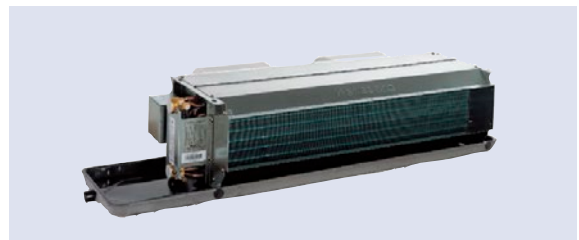
## **Fan Coil Unit**

These fan coil units are concealed in the ceiling space and connected to a Water Chiller Unit for heating and cooling. They are ideal for hotel rooms, offices or other smaller spaces.

Cooling Capacity: 1.8 – 11.0kW

Heating Capacity: 1.76 – 17.0kW

Static Pressure: 30Pa



## **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: 4.5 – 13.0kW

Heating Capacity: 5.6 – 14.6kW



## **Wall Mounted**

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.

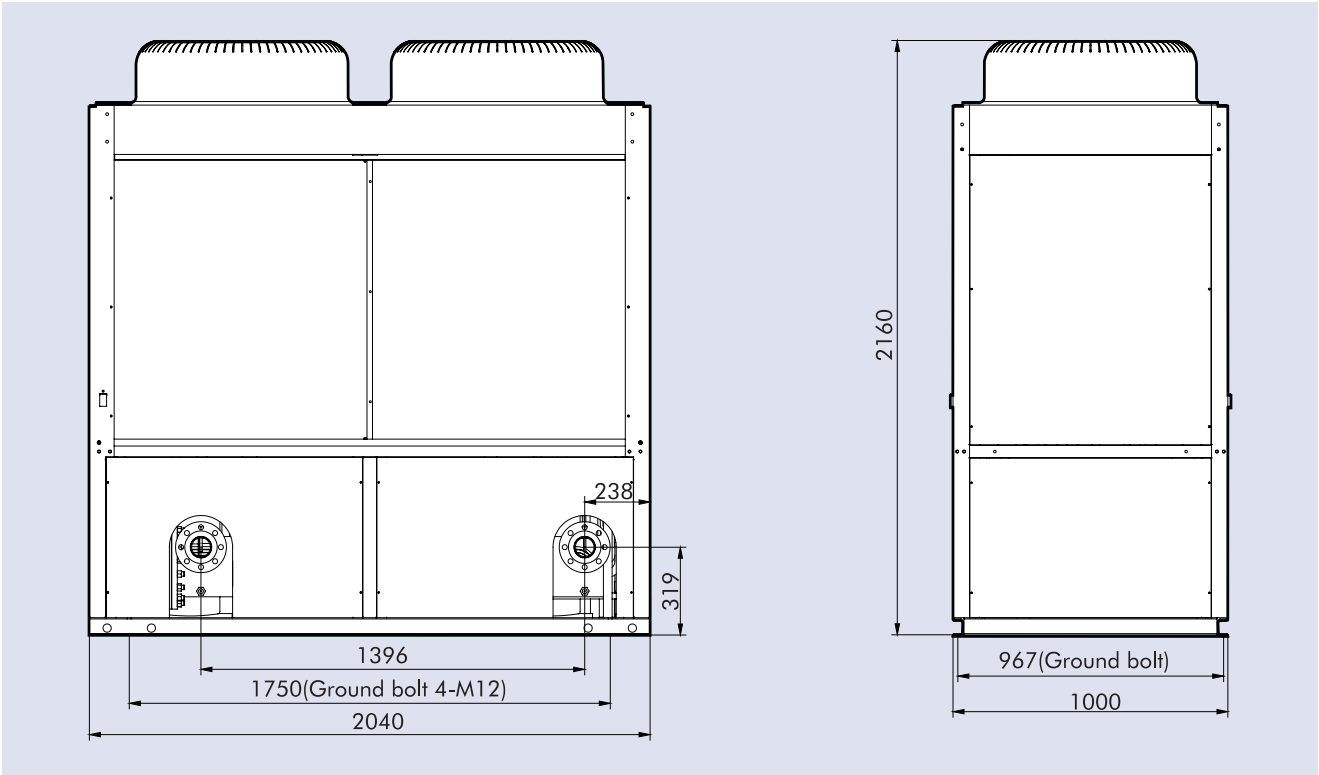
Cooling Capacity: 2.0 – 4.2kW

Heating Capacity: 2.7 – 5.4kW

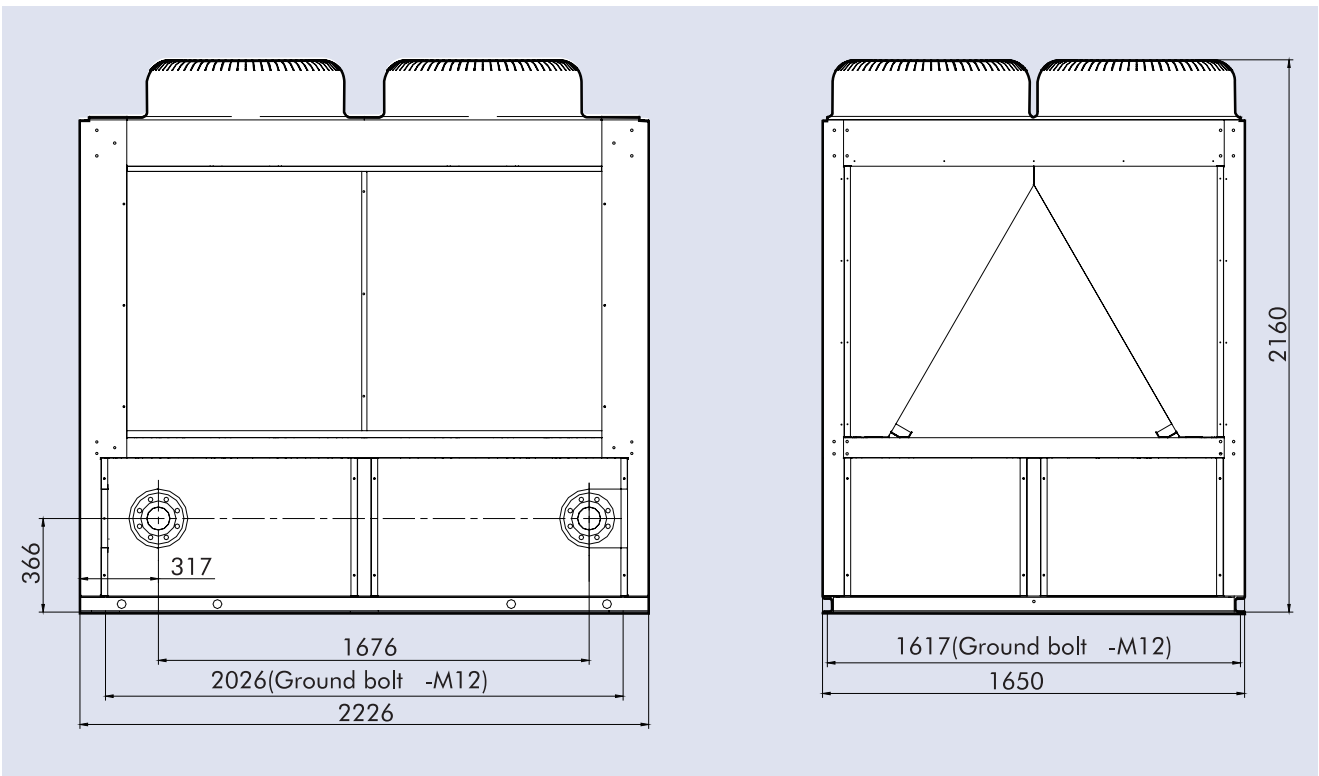


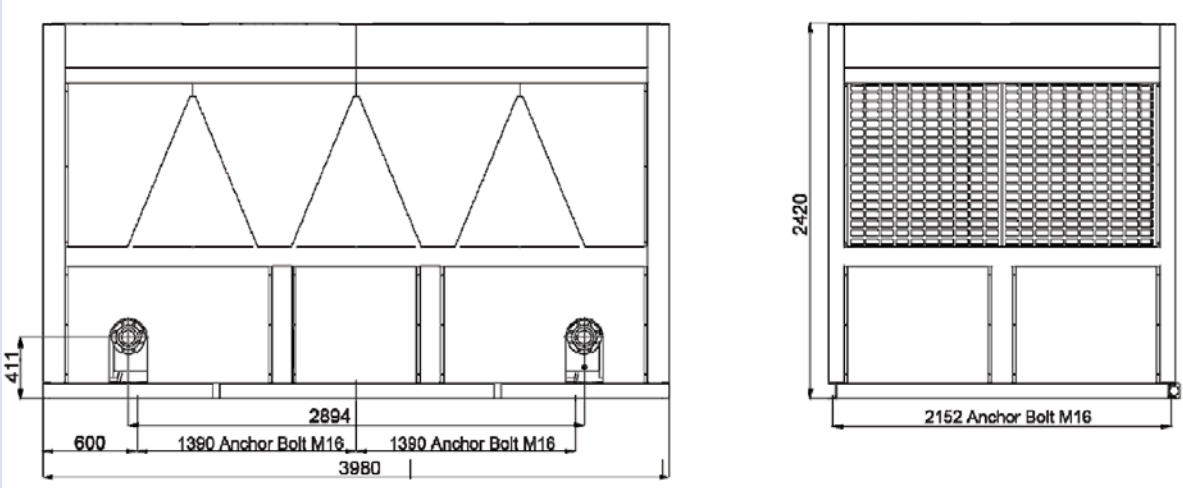
General Arrangement and Dimensions

LSQWRF65M/NaD-M, LSQWRF80M/NaD-M



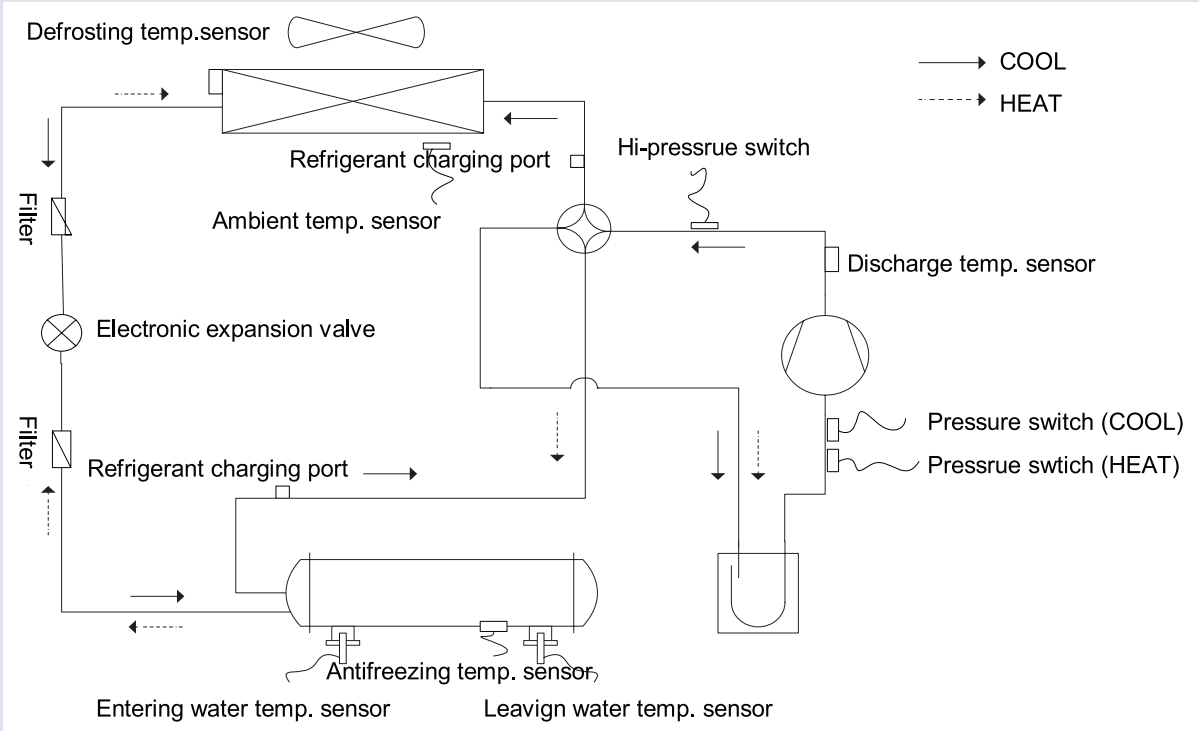
LSQWRF130M/NaD-M, LSQWRF160M/NaD-M





**Schematic Diagram**

**Typical Arrangement for a D-Series Chiller Module**



| Model                     | Heat Pump         |       | LSQWRF65M<br>/NaD-M                           | LSQWRF80M<br>/NaD-M    | LSQWRF130M<br>/NaD-M   | LSQWRF160M<br>/NaD-M   | LSQWRF249M<br>/NaD-M   |
|---------------------------|-------------------|-------|-----------------------------------------------|------------------------|------------------------|------------------------|------------------------|
| Capacity                  | Cooling / Heating | kW    | 60 / 65                                       | 71 / 80                | 120 / 130              | 147 / 160              | 249 / 275              |
| Capacity Steps            |                   | %     | 0-50-100                                      | 0-50-100               | 0-25-50-75-100         | 0-25-50-75-100         | 0-25-50-75-100         |
| EER/COP                   |                   | W/W   | 2.84 / 3.09                                   | 2.76 / 2.94            | 2.84 / 2.93            | 2.74 / 3.04            | 2.95 / 3.25            |
| Power Supply              |                   |       | 380~415V / 3Ph/ 50hz                          |                        |                        |                        |                        |
| Power Input               | Cooling / Heating | kW    | 21.1 / 21                                     | 25.7 / 27.3            | 42.3 / 44.4            | 51.4 / 54.6            | 84.4 / 84.6            |
| Compressor                | Type              |       | Hermetic Scroll                               |                        |                        |                        |                        |
|                           | Starting Mode     |       | Direct Starting                               |                        |                        |                        |                        |
|                           | Quantity          |       | 2                                             | 2                      | 4                      | 4                      | 4                      |
| Water Side Heat Exchanger | Type              |       | High Efficiency Shell and Tube Heat Exchanger |                        |                        |                        |                        |
|                           | Water Flow        | L/s   | 2.9                                           | 3.5                    | 5.7                    | 7                      | 11.9                   |
|                           | Pressure Drop     | kPa   | 15                                            | 20                     | 30                     | 40                     | 75                     |
|                           | Connection Pipe   |       | DN65                                          | DN65                   | DN80                   | DN80                   | DN100                  |
| Air Side Heat Exchanger   | Type              |       | High Efficiency Fin Tube type Heat Exchanger  |                        |                        |                        |                        |
|                           | Fan Type & Qty    |       | Axial x 2                                     | Axial x 2              | Axial x 4              | Axial x 4              | Axial x 8              |
|                           | Total Air Flow    | L/s   | 7,500                                         | 8,300                  | 15,000                 | 16,700                 | 31,111                 |
|                           | Fan Power Input   | kW    | 0.65 x 2                                      | 0.95 x 2               | 0.65 x 4               | 0.95 x 4               | 0.65 x 8               |
| Sound Pressure Levels     |                   | dB(A) | 70                                            | 71                     | 72                     | 73                     | 67                     |
| Dimension                 | W X D X H         | mm    | 2040 x 1000<br>x 2230h                        | 2040 x 1000<br>x 2230h | 2226 x 1650<br>x 2230h | 2226 x 1650<br>x 2230h | 3980 x 2260<br>x 2450h |
| Net / Operating Weight    |                   | kg    | 700 / 770                                     | 750 / 825              | 1240 / 1364            | 1340 / 1474            | 2985 / 3284            |
| Refrigerant Charge R410a  |                   | kg    | 2 x 6.1                                       | 2 x 7.4                | 4 x 6.1                | 4 x 7.4                | 4 x 12.85              |

Nominal test conditions:

Cooling: Ambient Temp 35°C DB, Water Temp 12°C EWT/7°C LWT

Heating: Ambient Temp 7°C DB/6°C WB, Water Temp 40°C EWT/45°C LWT

Technical specifications are tested under laboratory conditions and may differ as a result of installation or application.



For Installation and Sales:

For Parts and Warranty:

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