

Rinnai

Geoflo Hybrid

Geothermal Heating, Cooling
and Hot Water



geoflo
hybrid

Environmentally responsible climate control down under

Harnessing the abundant free renewable energy right under your feet

Everyday the ground absorbs approximately half of the sun's energy that reaches earth and stores it at a steady temperature. Rinnai's Geoflo Hybrid Geothermal system utilises this renewable energy source via a ground loop heat exchanger to reliably deliver highly efficient heating and cooling to achieve your desired level of comfort.

When in operation, in addition to beautifully heating and cooling your home, the Geoflo Hybrid technology also works to divert surplus energy to your hot water storage tank, effectively delivering free hot water.



At Rinnai we are all about comfort, efficiency and technology that helps protect our environment

For over 50 years, Rinnai has supplied Australian homes and commercial premises with a range of appliances that help people lead comfortable, safe and efficient lifestyles.

Being driven to create comfort means that we really care about our products and your experience from start to finish. We're focused on developing products with the latest technology and our level of quality is second-to-none, so you can rest assured knowing Rinnai will deliver.

How Geoflo Hybrid works

Incredibly effective and simple to operate



The Geothermal System

1. Ground Loop Heat Exchanger

An experienced licensed drilling team installs and seals the ground loop heat exchanger for years of reliable operation. The heat exchanger is protected by special conductive grout and polymer materials providing optimum performance during all seasons. Depth of the ground loop can vary from 40 to 100m deep according to heat transfer requirement and local soil condition.

2. Condensing Unit

The condensing unit is protected with a thermally insulated durable powder coated cabinet. The Australian designed control system monitors operation and displays parameters for easy installation and diagnostic purposes. Compressor Soft Starter technology also guarantees smooth start up and operation of the compressor.

3. Free hot water heating*

There is abundant free energy capture in the Rinnai Geoflo Hybrid design, and the energy that is surplus to the heating and cooling of your home is captured and diverted by Rinnai's unique technology to provide free hot water heating for your home.

4. Indoor Fan Coil Unit

A variable speed supply air fan automatically adjusts air flow to provide optimum capacity and comfort. The indoor unit uses an Electronically Commutated motor (EC) to achieve greater efficiency and quiet operation.

5. Controller

With your home or office Wi-Fi connection, you can control this thermostat from anywhere. Or with the Total Connect Comfort app, you can monitor or control your heating and cooling system with your smartphone from anywhere and anytime you choose. Back home, you'll like the look of the thermostat's colorful, high-definition touch screen.

*When the Geoflo hybrid is in operation, surplus energy is supplied to your hot water storage tank delivering free hot water heating.



Heating and cooling that doesn't cost the earth



Works in any climate

Rinnai's Geoflo Hybrid is a highly efficient direct exchange geothermal system that uses constant temperatures from the ground to transfer warm or cold air into almost all homes, buildings and provide hot water to your home or office.

Conventional heat pumps heat water slowly when outside air temperatures are low. The Rinnai Geoflo helps to heat your hot water rapidly because the ground temperature is always a high stable 17°C.

Supremely Efficient

Rinnai's Geoflo system is an incredibly quiet and efficient way to heat and cool your premises and deliver your hot water needs.

Because the stable temperature of the Earth is used, you can sustainably reduce your heating and cooling running costs by up to 50% percent. Best of all, geothermal systems can be installed in a wide variety of home or business applications in virtually any location.

Features and Benefits



Renewable

Because the earth is heated by the sun, the energy captured from the earth by the Rinnai Geoflo is free, renewable and clean.



Lower Energy Costs

With energy costs rising dramatically, the price of heating and cooling a home is becoming excessive. A Rinnai Geoflo system can save the average household up to 50% per year in running costs.



Quiet

Designed with consideration in mind, the Rinnai Geoflo Hybrid operates with minimal use of external fans, ensuring peace and quiet for both you and your neighbours.



Compact

The compact size of the system means it can be easily incorporated into the design of a new home or retrofitted into existing homes.



Sustainable

Because the stable temperature of the earth is used, you can sustainably reduce your heating and cooling running costs regardless of the weather.



Simple maintenance

With few moving parts, the Rinnai Geoflo requires minimal ongoing maintenance and service.



Warranty

Have peace of mind knowing you are protected by a 5 year limited warranty for the Heat Pump and indoor fan unit. For full terms and conditions visit rinnai.com.au



Drilling

The installation of the ground loop is encapsulated in a small diameter hole (approx 125mm) by highly trained drillers. Installed Ground Loops are encased in a thermally active and flexible grout protecting your system.

Drilling down to the facts

4 reasons why geothermal is the smarter choice for you

1

Renewable clean energy

Geothermal energy is extremely affordable and can cut electricity consumption by up to 50% in comparison to a traditional ducted reverse cycle air conditioning system. Geothermal system heating and cooling performance is maintained during extreme climate conditions eliminating high seasonal energy costs.

2

Very quiet

When looking for a heating and cooling system system that is virtually noise free, look no further than geothermal. Being very smooth and quiet in operation, geothermal systems rely on the temperature of the ground to heat and cool your home.

3

Flexible design

Geothermal heat pump systems are designed with the user in mind. Geothermal systems can be installed in either new or retrofit applications. Since the hardware requires a lot less space than traditional HVAC systems, you can instantly save yourself some storage space in your home by switching to a geothermal system.

4

Very durable

Geothermal systems have a relatively low level of moving parts. With high durability and reliability geothermal systems are becoming the way of the future for many homeowners.





Specifications

So simple yet incredibly effective

System Overview			
Model Name		DSGHW18Z1	
Power Supply		V - Ph - Hz	220- 240V, 1 phase, 50Hz
Cooling	Rated Capacity	kW	18.24*
	Rated Input Power	kW	4.52
	EER	W/W	4.00
Heating	Rated Heating Capacity	kW	18.16**
	Rated Heating Input Power	kW	4.50
	COP	W/W	4.00
Supplementary Hot Water Energy Output (Use To size PTR)		kW	10.00***
Supplementary Hot Water COP/			4.0
Average Water Production Rate		L/h	200***
Refrigerant			R410A
Refrigerant Pipe – Suction (Adaptor Supplied 3/4 " To 7/8" for long pipe work 15 m+)		mm / inch	19mm - 3/4"
Refrigerant Pipe – Liquid (Both to air handler and earth loop)			12.7 mm - 1/2"
Hot Outlet and Cold Return Connections (Adaptor Supplied 3/4 to 1/2 RP)			ISO 7.1¼" RP3/4
Condensing Unit			
Model Name		DOGHW18Z1	
Compressor Type		Scroll	
Oil Type		Polyester (POE)	
Breaker & wire size selection		Amps	32 A
Rated Load Amps (RLA)			20.4 A
Dimensions (W x D x H)		mm	660 x 500 x 1300
Weight (Net)		kg	148
Operating Temperature Limits		°C	-15 - 50
Sound Level		dBA	49
Drain Connection		Inch	3 /4" BSP
Indoor Fan Coil Unit			
Model Name		DIGEV18Z1	
Maximum Input Current Breaker & wire size selection		Amps	4.40
Rated Load Amps (RLA)		Amps	10
Maximum Input Power		kW	1.50
Dimensions (W x D x H)		mm	1225 x 655 x 444
Weight (Net)		kg	70
Air Flow @ 150 Pa		L/s	750
Maximum External Static Pressure		Pa	200
Return Air Duct Connection (L x W)		mm	1072 x 406
Supply Air Duct Connection (L x W)		mm	718 x 264
Rated Moisture Removal		L/h	5.70
Heat Pump Storage Tank			
Model Name		SE315AB36	
Cylinder Height		mm	1770
Cylinder Diameter		mm	605
Storage Tank Booster Heating Element Size		kW	3.60
Weight Empty		kg	92
Cold / Hot connection		Inch	ISO 7.1¼" RP
Rating of PTR Valve supplied		kW	10
Heat Pump Flow & Return connection		Inch	ISO 7.1 1/2" RP

* Rated Cooling Capacity (Liquid Inlet 25°C , Static Pressure 60Pa) - AS / NZS 3823.2
** Rated Heating Capacity (Liquid Inlet 25°C , Static Pressure 60Pa) - AS / NZS 3823.2
*** Rated Enery Output (Ambient 20 °C , Average Water Temp 40°C)- AS / NZS 5125.1

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For further information
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TOTAL HOME COMFORT



HOT WATER



HEATING



COOLING

Rinnai