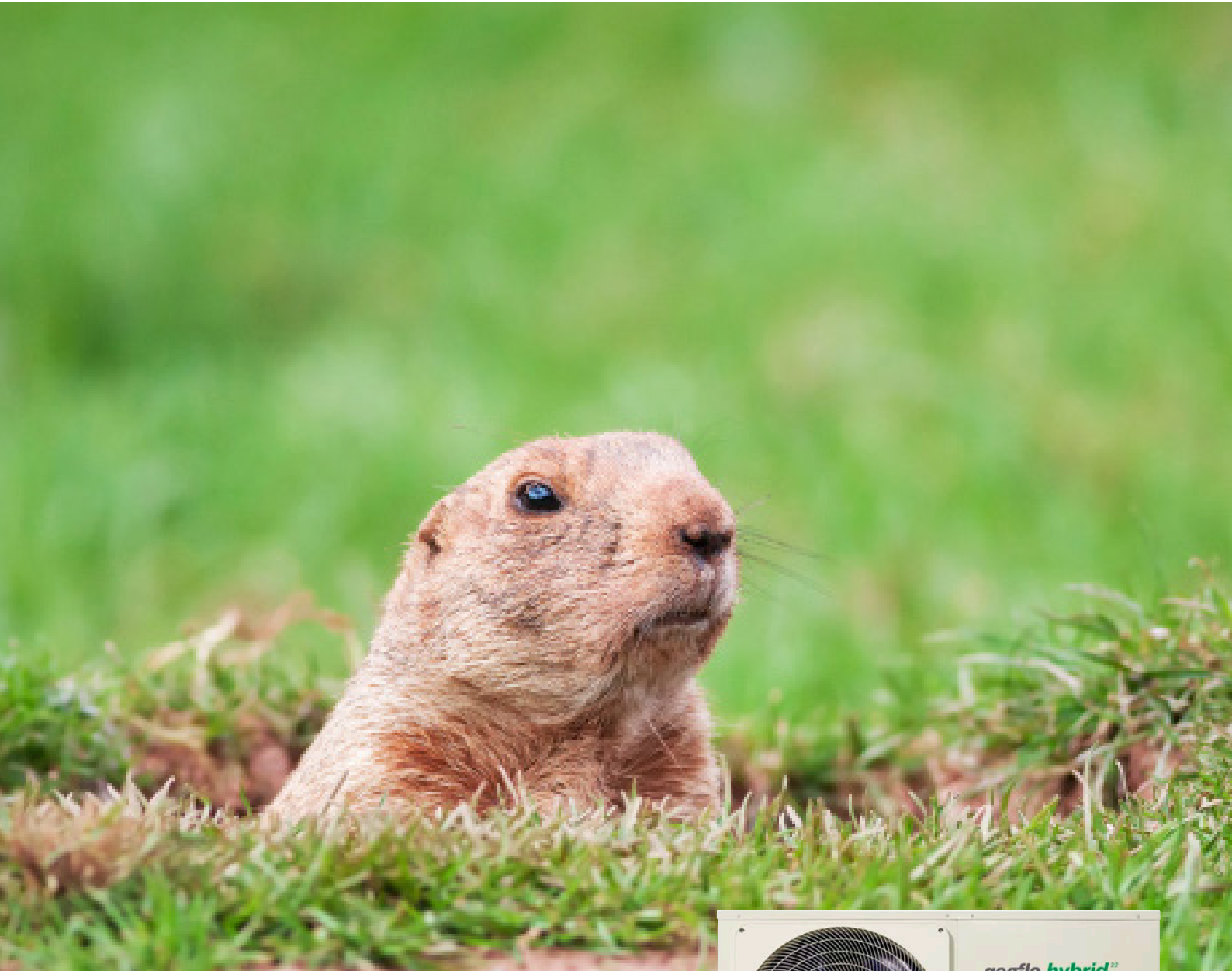


Rinnai



Geoflo Hybrid²²

Geothermal Heating, Cooling
and Hot Water



geoflo hybrid²²
by Rinnai

Environmentally responsible climate control down under

Harnessing the abundant 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 at specific depths. Rinnai's Geoflo Hybrid²² Geothermal system harnesses this renewable energy source from the ground to reliably deliver an efficient energy boost to your home's heating and cooling needs.

In addition to heating and cooling, the Geoflo Hybrid²² technology can divert surplus energy to supplement the generation of hot water for your home.



Geoflo Hybrid²²

Rinnai's gift to the planet



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 environment, products and your experience from start to finish. We're focused on developing our technology and our level of quality is second-to-none, so you can rest assured knowing Rinnai will deliver.

How Geoflo Hybrid²² works

Incredibly effective and simple to operate



The Geothermal Hybrid System

1. Ground Loop Heat Exchanger

A highly trained licensed geo drilling team drills, installs and seals the ground loop heat exchange mechanism for years of reliable operation, and charges the system with a proprietary heat exchange medium which is 100% environmentally benign. This mechanism is protected by a proprietary conductive casing providing optimum performance during all seasons. Depth of the ground loop can vary from 30 to 100m deep according to heat transfer demand and local soil conductivity, density and aqueous saturation levels.

2. Heat Pump Unit

The Geoflo Hybrid²² energy exchange unit is thermally insulated and mounted adjacent an external wall, and integrates the geothermal energy feed.

This is controlled by an Australian designed AI (Artificial Intelligence) brain that is enclosed in the outdoor unit. This monitors operations and displays parameters for easy installation, commissioning and diagnostics.

3. Hot Water Heating

There is abundant renewable energy captured in the Rinnai Geoflo Hybrid²². The energy that is surplus to the heating and cooling of your home can be captured and diverted to support the heating of your home's hot water.

4. Indoor Fan Coil Unit

A variable speed supply air fan inside the home, is much like a traditional airconditioned system. It automatically adjusts air flow to provide optimum capacity and comfort at your choice of indoor set point temperatures. The indoor unit contains an Electronically Commutated (EC) motor that provides efficient fan speed control.

5. Artificial Intelligent Brain

With your home or office Wi-Fi connection, you are able to control your indoor thermostat from anywhere. Or with the Total Connect Comfort app, you can monitor or control your heating and cooling system using your smartphone or android from anywhere and at any time you choose. Back home, you'll like the look of the Rinnai Geoflo Hybrid²² thermostat's colourful, high-definition touch screen. All round, and all year round, the Rinnai Geoflo Hybrid²² system is a winner for your home comfort and the environment.

Heating and cooling that doesn't cost the earth



Works in any climate

Rinnai's Geoflo Hybrid²² is an efficient hybrid geothermal system that uses energy from the ground and transfers it to the warm or cold air circulating in your home.

Conventional heat pumps heat room air and hot water very slowly when outside air temperatures are low, as in cold nights and winter conditions. However, the Rinnai Geoflo Hybrid²² with its unique geothermal ground loop heats your home more efficiently, because the ground temperature is always at a stable condition of -17°C . This provides a higher COP (coefficient of performance) than conventional reverse cycle inverter systems and heat pumps.

Supremely Efficient

Rinnai's Geoflo system is a uniquely efficient way to heat and cool your premises and supplement your hot water needs.

Because the stable temperature of the Earth is used, you can sustainably reduce your heating and cooling running costs. Best of all, geothermal systems can be installed in a wide variety of home or business applications.



Features and Benefits



Renewable

Because the earth is heated by the sun, the energy captured from the earth by the Rinnai Geoflo Hybrid²² is renewable and clean.



Lower Energy Costs

With energy costs rising dramatically, the price of heating and cooling a home and heating hot water is a high portion of your energy costs. The Rinnai Geoflo Hybrid²² system will save on your household's energy running costs compared to conventional systems.



Sustainable

With the added benefit of stable sub-ground temperatures, you can sustainably reduce your heating and cooling running costs, with less impact from adverse ambient conditions.



Warranty

Have peace of mind knowing you are protected by a Rinnai 5 year limited warranty on the whole system with an optional 5 year extended warranty on the geothermal well system, at a modest cost. For full terms and conditions visit rinnai.com.au.



Drilling

The installation of the Geoflo Hybrid²² ground loop is encapsulated in a small diameter well (approx 125mm), which is installed by highly trained technicians. Ground Loops are encased in a thermally active and flexible casing protecting your system and providing years of efficient life.

Drilling down to the facts

3 reasons why geothermal is the smarter choice for you

1

Renewable clean energy

Geothermal energy is readily accessible and can assist in reducing electricity consumption in comparison to a traditional ducted reverse cycle inverter air conditioning system. Geothermal system heating and cooling performance is less impacted by adverse ambient conditions.

2

Flexible design

Geothermal heat pump systems are designed with the user in mind. They are designed to be installed in either new or retrofit applications.

3

Very durable

With high durability and reliability geothermal systems are becoming the way of the future for many homeowners who want lower energy costs and environmental solutions that deliver greener outcomes.





Specifications

So simple yet incredibly effective

System Overview			
Model Name		Geoflo Hybrid ²²	
Power Supply		V - Ph - Hz	220- 240V, 1 phase, 50Hz
Cooling	Rated Capacity	kW	19.7*
	Rated Input Power	kW	4.8
	EER	W/W	4.1
Heating	Rated Capacity	kW	18.0**
	Rated Input Power	kW	4.6
	COP	W/W	3.9
Supplementary Hot Water Energy Output (Use To size PTR)		kW	10.00***
Supplementary Hot Water COP/			3.9
Refrigerant		R410A	
Refrigerant Pipe – Suction		19mm (3/4")	
Refrigerant Pipe - Liquid		9.5mm (3/8")	
Hot Water Outlet and Return Connections		ISO 7.1 RP 3/4"	
Condensing Unit			
Model Name		DONGSHW18Z3	
Compressor Type		Inverter Twin Rotary	
Oil Type		Polyester (POE)	
Current Breaker		Amps	40
Maximum Input Current			32
Dimensions (W x D x H)		mm	1257 x 508 x 1395
Weight (Net)		kg	206
Operating Temperature Limits		°C	-15 - 50
Sound Power Level		dBA	67
Sound Pressure Level @1m		dBA	56.8
Indoor Fan Coil Unit			
Model Name		DINLR17Z72	
Current Breaker		Amps	10
Rated Current		Amps	3
Maximum Input Power		W	600
Dimensions (W x D x H)		mm	1400 x 858 x 440
Weight (Net)		kg	75
Air Flow @ 150 Pa		L/s	1100
Maximum External Static Pressure		Pa	200
Return Air Duct Connection (L x W)		mm	1188 x 385
Supply Air Duct Connection (L x W)		mm	1188 x 385
Rated Moisture Removal		L/h	3.3

* Rated Cooling Capacity (890 L/s Air Flow @ 60 Pa ESP - AS / NZS 3823.2

** Rated Heating Capacity (902 L/s Air Flow @ 60 Pa ESP - AS / NZS 3823.2

*** Rated Energy Output under standard conditions and supplementary heating (Ambient 20 °C, Temperature rise from 20°C to 45°C)- AS / NZS 5125.1

With our policy of continuous improvement, we reserve the right to change, or discontinue at any time, specifications or designs without notice.

Note: All images contained within this brochure are for illustrative purposes only, the colours and finishes of the products featured are as close to the respective product range as photographic lighting and printing processes allow.



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TOTAL HOME COMFORT



HOT WATER



HEATING



COOLING

Rinnai