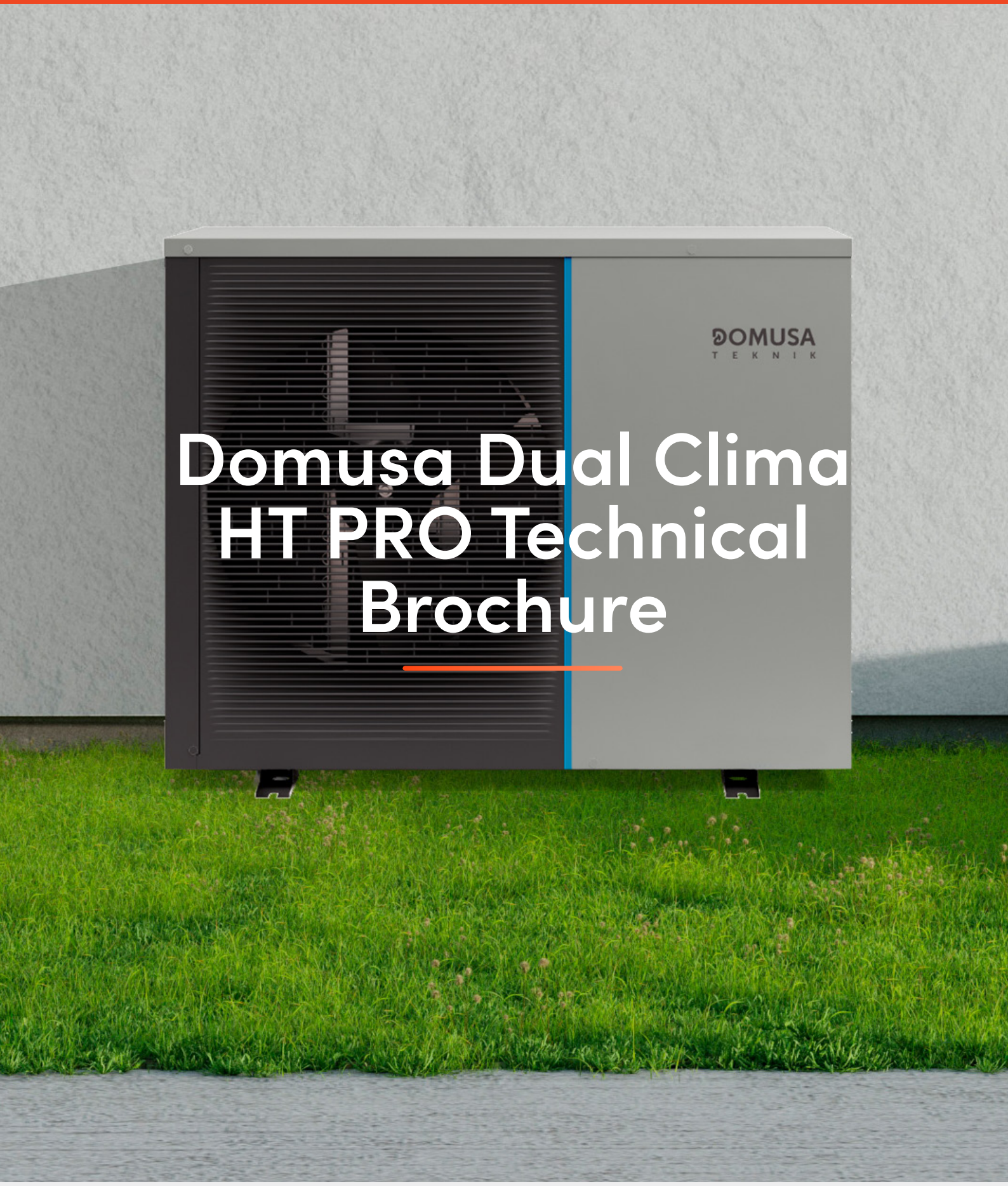
Central Heating
TRADE
by Rinnai



Domusa Dual Clima HT PRO Technical Brochure

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Domusa Dual Clima HT PRO

The Latest Innovation in High-Temperature Heat Pump Technology

With a sleek new design and advanced features, this model delivers exceptional performance and efficiency, earning an impressive A+++ energy rating. Engineered for reliability and sustainability, the Dual Clima HT PRO sets a new standard for comfort and energy savings.

New 19kW Model added to the Range

The 19kW model is the perfect fit for large and high heat loss homes, colder climates and bridging the gap between boiler and heat pump output for retrofit applications. All while retaining the same compact size as the 16kW model. The whole HT PRO range of heat pumps utilises a compact, eco-friendly design using natural R290 refrigerant. Benefits of R290 are a low Global Warming Potential (GWP) of just 3, reduced refrigerant charge volume by 50% and operating at lower discharge pressures, results in longer internal component life.

The Domusa Dual Clima HT PRO can produce up to 75°C flow temperatures making it a great solution for boiler retrofits and radiator installations. Operating at lower flow temperatures for use with underfloor offers even greater gains of efficiency. Paired with an indirect HWC for DHW production the Domusa can produce up to 70°C, covering 100% of your DHW production with no need to use an electric element for anti-legionella protection.

It's control interface is a simple yet intuitive color touch screen that enables easy adjustment of set points and functionality. The diagnostics screen offers an in depth, real time view of the systems current status making it a vital tool for advanced service and diagnostics. Access to advanced parameters is made easy for commissioning and set up of the heat pump. With the ability to operate in ambient conditions as low as -20°C, it combines efficiency, and a environmental friendly hydrocarbon refrigerant in a true Monobloc design, making it ideal for replacing older heat sources.

Key Highlights

R290 Refrigerant

- Natural and non-toxic
- High thermal conductivity compared to other refrigerants
- Smaller charge volumes
- Low GWP

Heating Temperatures Up To 75°C

- Optimal for boiler replacements
- Greater efficiency gained at standard flow temperatures

DHW Temperatures Up To 70°C

- Removes the need to use an electric element for anti-legionella protection

Controller

- Colour touch screen
- Intuitive diagnostics area
- Simple to use and navigate

True Monobloc Design

- Factory fitted PRV, AAV, expansion vessel and pressure gauge

Capacity

- 12kW
- 16kW
- 19kW

Compact

- Most compact 16kW, R290 heat pump on the New Zealand market
- Low minimum unit clearance requirements

HT PRO 19kW

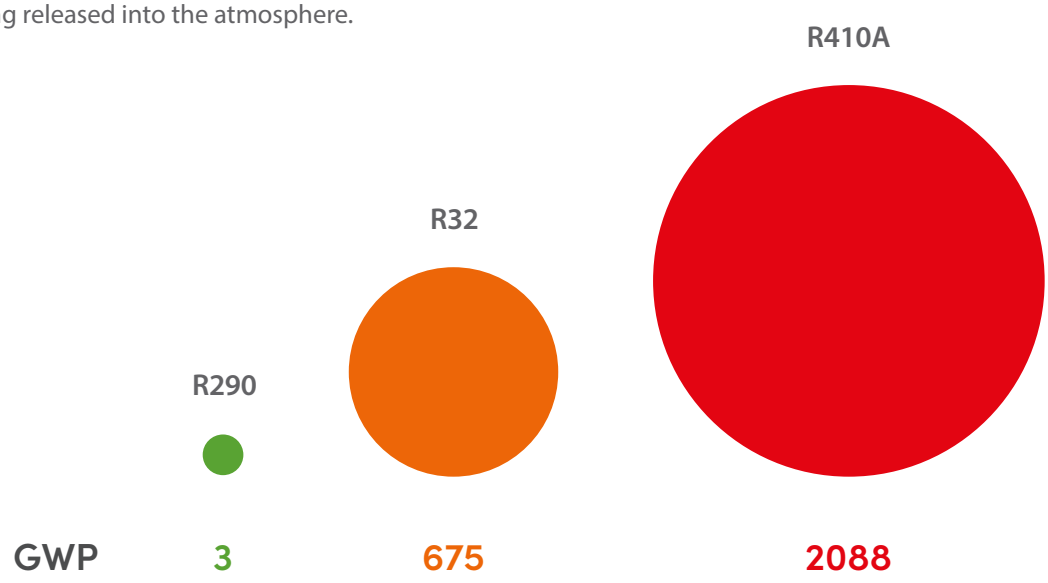
Accessories

- Every heat pump is supplied with a deaerator to align with guidelines for the safe use of hydrocarbon refrigerants
- Controller mounting box for surface mounting
- Anti-vibration feet
- 5m DHW Probe (5K NTC)
- ½" Drain valve
- Condensate drain fitting
- Heat pump controller

Reducing Global Warming Potential with R290 Refrigerant

What is Global Warming Potential (**GWP**)?
GWP is a measure of how much infrared thermal radiation a greenhouse gas like the refrigerants used in heat pumps, would absorb over a given time frame after being released into the atmosphere.

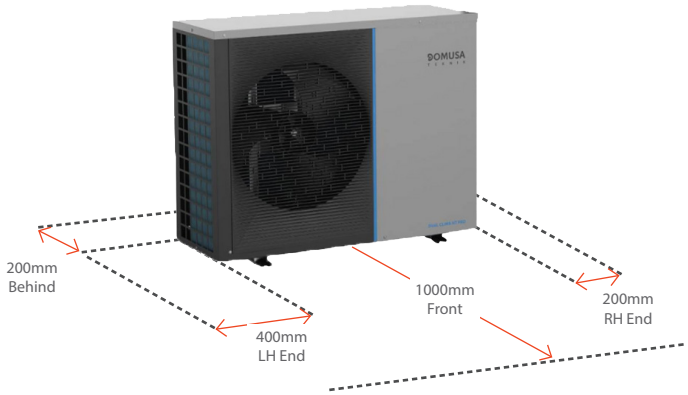
The higher the **GWP**, the more heat retained in our atmosphere, contributing to global warming. The use of natural refrigerants such as R290 dramatically reduces this affect.



Clearances and Recommendations

Basic minimum clearances Central Heating New Zealand require to be observed. Certain installations with enclosed areas may require larger clearances. See Installation manual for more detail.

HT PRO 12kW



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It is recommended that the heat pump be mounted on anti-vibration mounting feet, a minimum of 80mm off the ground. This will allow for correct air flow around the unit and prevent dirt and leaf debris building up at the base of the finned heat exchanger. Anti-vibration feet allows each corner of the heat pump to be adjusted for installations on uneven ground and includes fasteners.

Fix-it-foot style mounts can be sourced from local suppliers if this is preferred. These don't include fixings and are not designed to be fastened to the ground.

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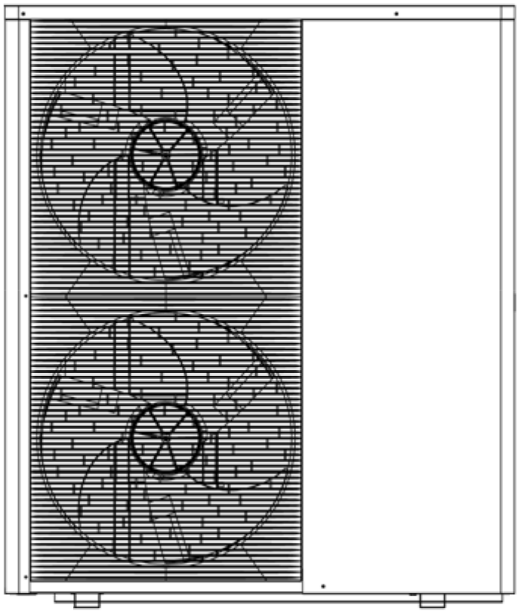
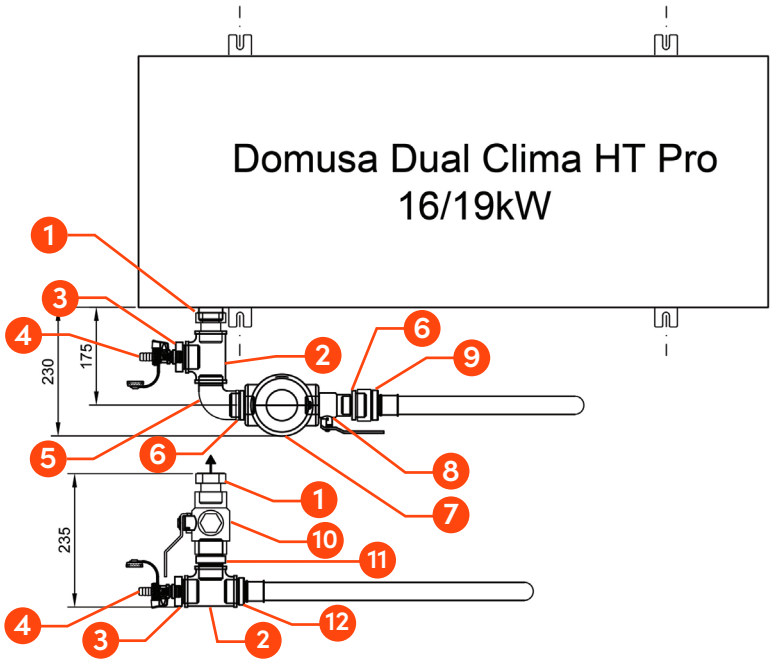
Specifications

Model	HPDDCP12	HPDDCP16	HPDDCP19
Heating			
Capacity [kW]	12.60	16.84	19.52
Power Input [kW]	2.72	3.62	4.30
COP	4.63	4.65	4.54
Cooling			
Capacity [kW]	11.8	15.09	18.62
Power Input [kW]	2.61	3.58	4.43
Power Supply	230VAC Single Phase	230VAC Single Phase	230VAC Single Phase
Max Current Draw	17	27A	30.4A
Hydronic Connection Port Size	1"	1 1/4"	1 1/4"
Minimum System Water Volume	48L	60L	80L
Minimum System Flow Rate	16L/min	20L/min	24L/min
Dimensions & Weight (NET)			
Height [mm]	900	1,320	1,320
Width [mm]	1,115	1,115	1,115
Depth [mm]	415	415	415
Weight [kg]	125	140	146
Noise			
Sound Power dB(A)	52	55	55



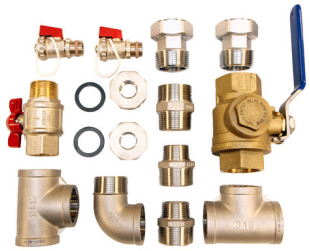
HPDDC16

Dimensions and Fitting Kit



Key Components

1. 1 1/4" MT-FT Swivel Union
2. 1 1/4" Tee
3. 1 1/4" to 1/2" Bush
4. 1/2" Drain Fill Valve
5. 1 1/4" MT-FT Elbow
6. 1 1/4" to 1" Nipple Reducing
7. 1" FAR Deaerator
8. 1" Ball Valve (MT-FT)
9. MT40 1 1/4" FT MT40 Pipe as Feeds
10. 1 1/4" Filter Ball Valve
11. 1 1/4" Nipple
12. MT40 1 1/4" MT MT40 Pipe as Feeds



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