

DOMUSA
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Domusa Dual Clima HT Heat Pump

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Domusa's high-temperature heat pump is 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 operation at lower discharge pressures, resulting in longer internal component life. The Domusa Dual Clima HT 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.

Its 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 an 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 75°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

- 16kW: COP of 4.69 @ 35/30/7°C
- 12kW: COP of 4.47 @ 35/30/7°C

Compact

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

Accessories

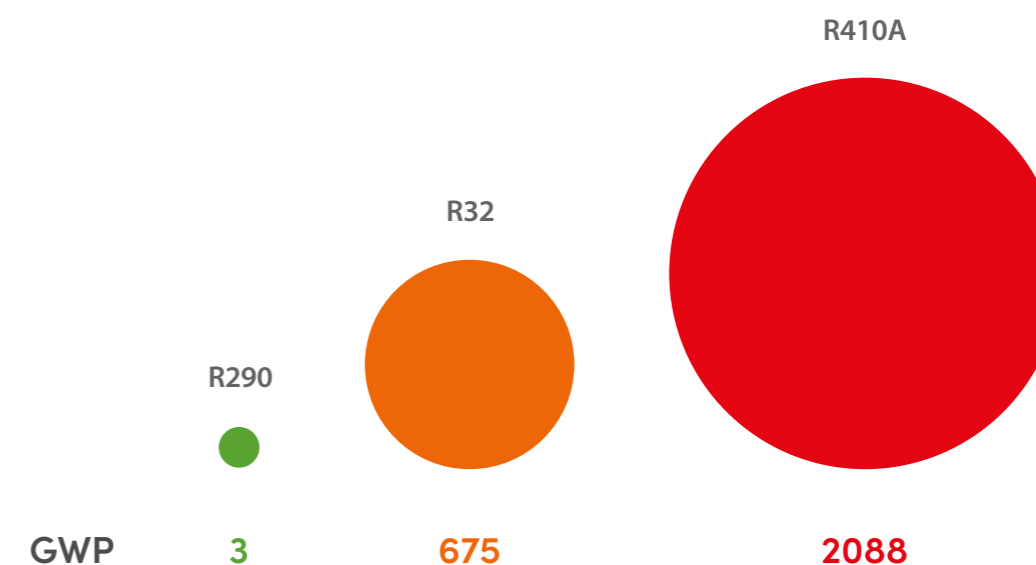
- Every heat pump is supplied with a deaerator to align with guidelines for the safe use of hydrocarbon refrigerants
- Controller mounting box for surface mounting
- Anti-vibration feet
- 5m DHW Probe (5K NTC)
- ½" Drain valve
- Condensate drain fitting
- Heat pump controller

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.

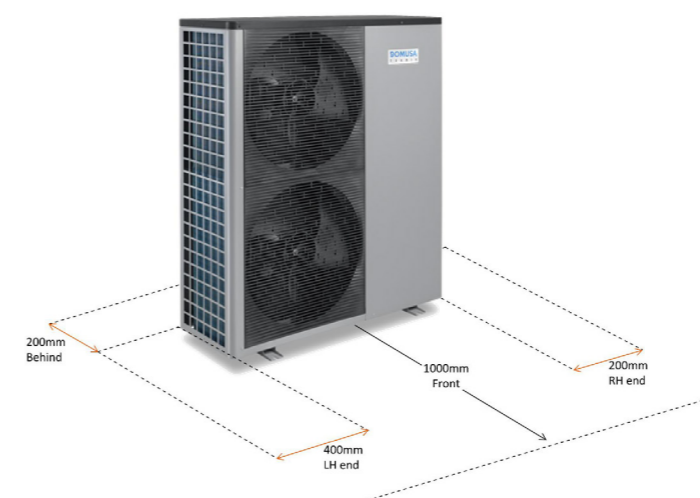


Clearances and Recommendations

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.



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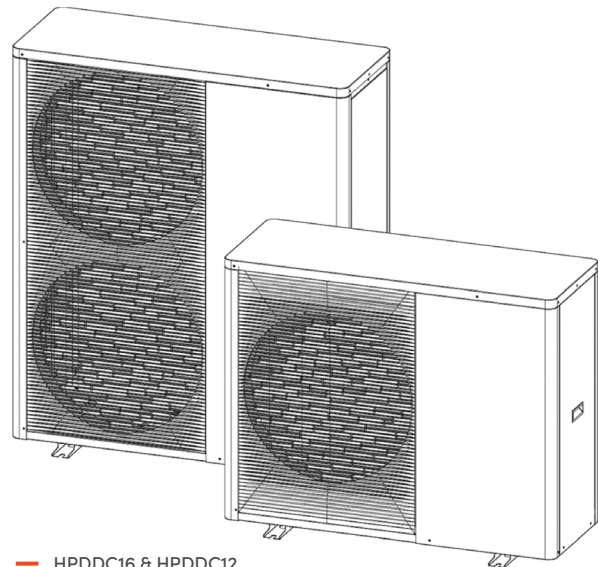


It is recommended that the heat pump be mounted on anti-vibration mounting feet, a minimum of 80mm off the ground. This will allow for correct air flow around the unit and prevent dirt and leaf debris building up at the base of the finned heat exchanger. Anti-vibration feet allows each corner of the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

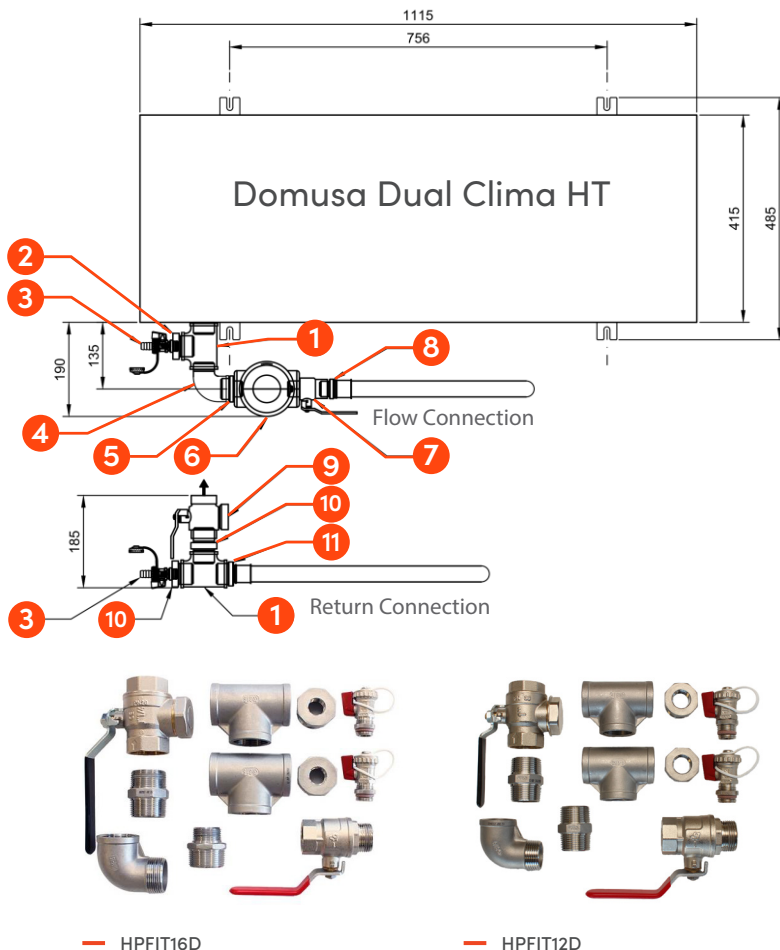
Specifications

Model	HPDDC12	HPDDC16
Heating		
Capacity [kW]	12	16
Power Input [kW]	2.72	3.41
COP	4.47	4.69
Cooling		
Capacity [kW]	10.80	14.85
Power Input [kW]	2.88	3.97
Power Supply	230VAC Single Phase	230VAC Single Phase
Max Current Draw	17A	27A
Hydronic Connection Port Size	1"	1 1/4"
Minimum System Water Volume	48L	60L
Minimum System Flow Rate	16L/min	20L/min
Dimensions & Weight (NET)		
Height [mm]	898	1,320
Width [mm]	1,115	1,115
Depth [mm]	415	415
Weight [kg]	125	175
Noise		
Sound Power dB(A)	44	48



— HPDDC16 & HPDDC12

Dimensions and Fitting Kit



Key Components

- 1 1 1/4" Tee (16kW), 1" Tee (12kW)
- 2 1 1/4" to 1/2" Reducing Bush x2 (16kW), 1" to 1/2" Reducing Bush x2 (12kW)
- 3 1/2" Drain Fill Valve x2
- 4 1 1/4" MT-FT Elbow (16kW), 1" MT-FT Elbow (12kW)
- 5 1 1/4" to 1" Reducing Hex Nipple (16kW), 1" Hex Nipple (12kW)
- 6 1" FAR Deaerator (2251 1)
- 7 1" Ball Valve (MT-FT)
- 8 Multitubo pipe and fitting sold separately
- 9 1 1/4" Filter Ball Valve (16kW), 1" Filter Ball Valve (12kW)
- 10 1 1/4" to 1/2" Reducing Bush x2 (16kW), 1" to 1/2" Reducing Bush x2 (12kW)
- 11 Multitubo pipe and fitting sold separately

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