PRO-SERIES™

HEAT PUMP WATER HEATER

dux

ecosmart

ecofriendly

economical

ecosmart

POWERFUL, & MORE ENVIRONMENTALLY FRIENDLY TOO

Designed with maximum efficiency and heating recovery in mind, new Dux Ecosmart Pro-Series heat pumps are the perfect choice for households with larger hot water demands looking to save on their energy bills.

They feature a powerful compressor to provide fast recovery, meaning they take less time to reheat the tank. This makes them a great choice to combine with low cost ‘solar sponge tariffs’, or to pair with a roof mounted solar PV system.

Available in a 270L tank capacity, they feature an external wraparound copper condenser coil, ensuring they’re suitable for a broad range of water qualities found throughout Australia.

Pro-Series models use R290 refrigerant, an environmentally friendly gas with a low global warming potential (GWP) of less than 3. That’s naturally better for our environment than synthetic alternatives.

FEATURES AND BENEFITS

- 270L tank size
- **Uses up to 75% less** energy than a standard electric water heater‡
- **Faster heating rate** enabled by a powerful compressor
- Environmentally friendly **low GWP R290** refrigerant
- Element included as standard provides **heating redundancy** & single shot boost applications
- **Long service life** with interchangeable major components
- Use the touch screen **smart controller** to select operation mode and heat pump settings, including up to 2 timer schedules per day
- Highly energy efficient with a Coefficient of Performance **COP of 4.7#**
- Tank features an **external heat exchanger coil** which never comes in contact with water and dual anodes for a long service life
- Suitable for use with **Solar PV** and concessional **Solar Sponge tariffs**
- **Automatic, active defrost** function for use in very cold climates
- Option of **hard wired or plug in models**
- Eligible for **generous government incentives†**

SIZING CONSIDERATIONS

	CLIMATE		
	COLD	WARM	HOT
NO. OF PEOPLE			

To be used as a guide only - based on an average usage of 45L of hot water per person during the day. In relation to usage a person can represent a dishwasher or washing machine. Based on connection to continuous tariff and not operating on a timer schedule.

Things to consider:

- Heat pumps are more efficient when heating during warmer daytime hours.
- Heat pumps will heat water at a faster rate when ambient conditions are warmer.
- If scheduling, you may need to allow more time to heat during winter than in summer particularly if you run out of hot water intermittently.
- When replacing systems with a larger capacity e.g. 315L, you may need to reheat the heat pump tank if the stored water in the tank runs out. You will need to be connected to a continuous power supply to do this.
- Maximum heating speed is achieved when using the Boost function to simultaneously heat with both the heat pump and element.

HOW IT WORKS

The new Dux Pro-Series heat pump features an external copper condenser coil for efficient water heating, making it more suitable for use in a broad range of water qualities. Working like a fridge, but in reverse, the heat pump absorbs heat energy from the air outside the tank, and uses this free energy to help heat the water.

1KW
POWER IN

4KW
ENERGY OUT

Step 1
Outside air is drawn through the evaporator by a fan.

Step 2
The evaporator uses the heat from the air and turns the liquid refrigerant into a vapour.

Step 3
The refrigerant vapour is compressed and becomes a very hot gas.

Step 4
The hot gas is pumped through the copper condenser coil, heating the water from the outside in. After transferring this heat, the refrigerant gas turns back into a liquid state.

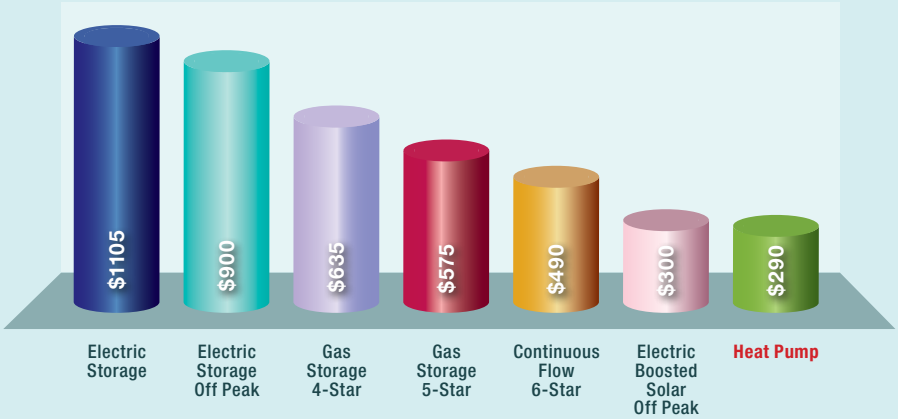
Step 5
The liquid refrigerant then flows through an electronic expansion device where its pressure & temperature drops, before the low temperature refrigerant enters the evaporator to repeat the heating cycle.

COMPARE POTENTIAL SAVINGS

When it comes to running costs, the savings from heat pump technology really add up. You could save a massive $610 off your electricity bill every year, simply by replacing a standard electric water heater connected to an off peak tariff with a Dux Ecosmart Pro-Series heat pump. Even greater savings are achievable when scheduling to consume excess solar PV.

And with generous government incentives currently available, there's no better time to install a new Dux Ecosmart Pro-Series heat pump.

The easy way to save.



Graph above shows approx annual running cost of various water heater types; Estimations based on 4 people (150 litres per day) – Source: www.sustainability.vic.gov.au

HIGH PERFORMANCE, HIGH RECOVERY

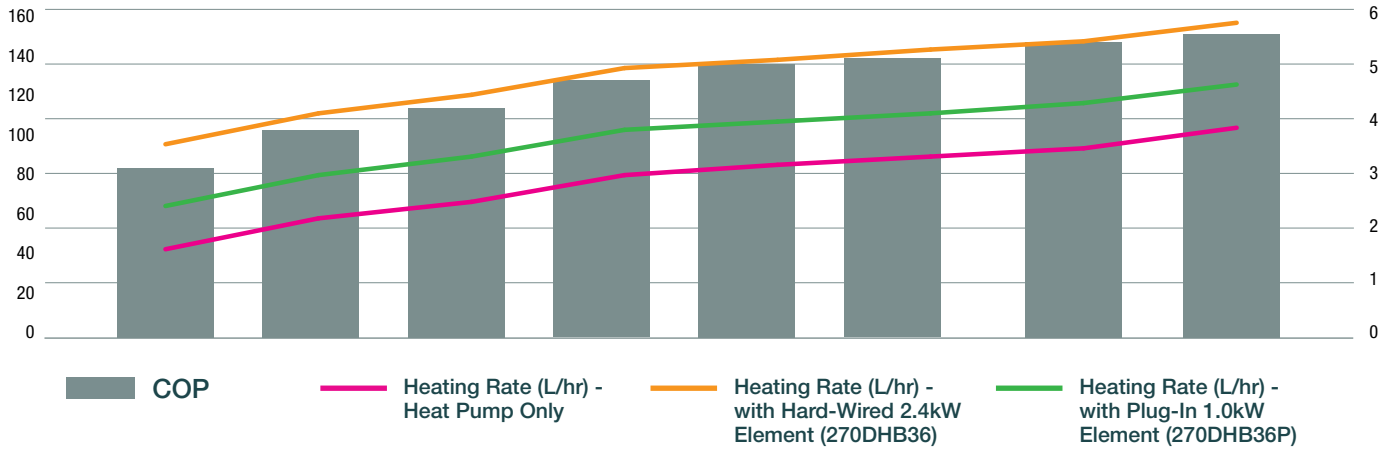
Dux Pro-Series heat pumps are not only highly energy efficient; they feature powerful recovery for faster heating.

With their powerful compressor, Dux Pro-Series heat pumps can heat 77L/hr. That's enough to heat a full tank in only 3.5hrs.

All models include a back-up heating element for one shot boost applications. Use this boost function to help service extra-large hot water loads in cold ambient temperatures, or with time limited heating schedules.

Ambient (°C)	COP	Heating Rate (L/hr)		
		Heat Pump only	Heat Pump & Element (Hard-wired 2.4kW model)	Heat Pump & Element (Plug-In 1.0kW model)
5	3.1	**41**	92	62
10	3.8	**56**	107	77
15	4.2	**64**	116	86
20	4.7	**77**	129	99
25	5	**82**	133	103
30	5.1	**86**	138	107
35	5.4	**90**	142	112
42	5.55	**100**	151	121

Heat Pump Performance

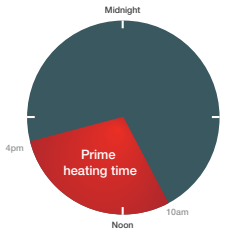
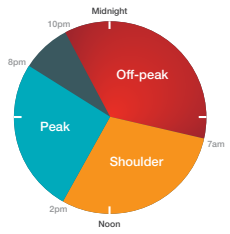
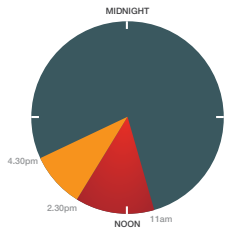


TARIFFS & SMARTER SCHEDULING

When it comes to choosing the right sized heat pump, you need to consider storage capacity, recovery rate and the electricity tariff you'll be connecting to.

With the popularity of solar PV systems in Australia, there's now a reason to heat water throughout the day when heat pumps are at their most efficient. Whether you have your own PV solar system, or are simply taking advantage of excess PV power available in the grid, there's some savvy choices to maximise running cost savings from your heat pump.

Just make sure you schedule enough time to heat the whole tank.

Solar PV Installed	No Solar PV Installed	
Flat rate tariff	Time of Use tariff (TOU)	Concessional tariff (Solar Sponge)
		
Schedule the heat pump to heat the water when your PV system is generating an excess of at least 1kW, e.g. approx 10am to 4pm. Adjust this time based on the season, your usage and PV generation. **No PV?** Schedule the heat pump to heat the water during warmer times of the day.	Schedule the heat pump to heat the water during warmer daytime **shoulder** periods. Whilst off-peak periods offer cheaper rates, heat pumps can be noisy when operating overnight. Note, every energy provider has different plans & tariff periods. Check what periods are available from your energy provider.	Schedule the heat pump to heat the water during daytime concessional tariff periods e.g. 11am to 2.30pm. Some energy providers offer 3 hours of free power between 11am and 2pm. You may need to extend the heating beyond this free power window by approx an hour to ensure the whole tank is heated.

Overnight off peak - Not recommended for use due to noise considerations, and efficiency impacts (particularly in winter).

Important - When setting a schedule, you need to provide an adequate amount of time for the heat pump to heat. In summer, it can heat a full tank in 3.5 hours, whereas, in winter it will need at least 4.5 hours (depending on temperature). You may be able to activate the element in winter to heat water faster eg if on the 3hr free time of use tariff, using the element and heat pump in tandem. This will reduce a full tank heat up cycle to just 2.5 hours (or completely free).

MARATHON WARRANTY

All Dux water heaters are backed by our Marathon® Warranty. It's designed to provide you with complete peace of mind from a trusted hot water manufacturer, in business since 1915.

The Dux Ecosmart Pro-Series heat pump comes with a 5 year tank & refrigeration components warranty including labour, and 1 year other components parts & labour warranty.

Our Australian based Customer Service team is available to assist you regarding suitability, product information, warranty or for service enquiries.

Solar Victoria's Solar Homes Program:
Without limiting the stated warranty period above, a 5 year 'Whole of Product' warranty applies where a rebate has been received under Solar Victoria's Solar Homes Program for installations from 1 July 2023. Full warranty terms and conditions are in the product's Owners Manual, visit www.dux.com.au/warranty-terms to view or download.

5 YEAR* WARRANTY

A BETTER CHOICE

LOW GWP R290 REFRIGERANT

Better for the Environment

Global Warming Potential, or GWP, is a measure of how destructive a climate pollutant is. Dux Pro-Series heat pumps use R290 refrigerant, an environmentally friendlier gas with a low global warming potential (GWP) of less than 3, referenced against a GWP of 1 for CO2. That's naturally better for our environment than synthetic alternatives in the event of a refrigerant leak. Commonly used synthetic refrigerants often have GWPs in the thousands, meaning they could have a substantially larger contribution to increasing the greenhouse effect, which poses risks to the ecological environment and human health.

More Tolerant in More Applications

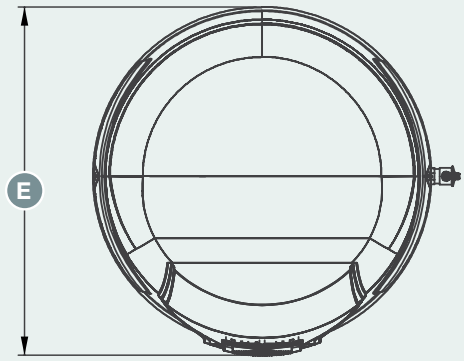
The external wraparound coil condenser in the Dux Pro-Series heat pump makes its suitable for use in a broad range of water quality areas. Water can contain trace element minerals which affects the water chemistry, making it corrosive or scaling in nature. Having the condenser coil on the outside of the tank prevents it coming into contact with water that could otherwise erode or block the heat exchanger over time.

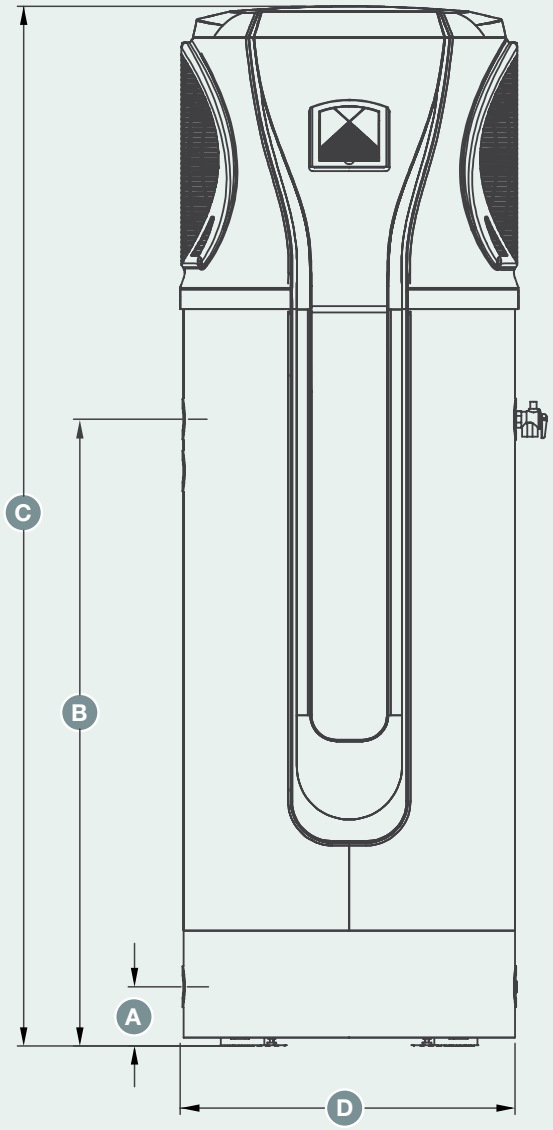
More Durable

Pro-Series heat pumps feature an external copper coil condenser. It is wound on the tank under tension and attached to the enamel coated surface of the cylinder with a special heat transfer paste. Whilst this is a higher cost manufacturing process, it offers proven, reliable performance over the long term compared to lower cost aluminium microchannel arrangements.

The polymer materials used on the Dux Pro-Series heat pump are UV stabilised, and flame retardant. This ensures the plastic heat pump housing won't turn brittle in the harsh Australian sun, and is safer too.

SPECIFICATIONS





NOMINAL DIMENSIONS (MM)	
MODEL	270DHB36/36P
Inlet/Drainage Height (A)	115
Outlet Height (B)	1211
Total Height (C)	2010
Nominal Diameter (D)	Ø 640
Total Depth including Cover (E)	673

'P' on the end of the model code indicates plug-in model. Plug-in models are supplied with a 3m power cord to plug into a 10A GPO.

SPECIFICATIONS		
MODEL	270DHB36	270DHB36P
Storage Capacity (L)	270	270
Rated Heating Capacity (kW)	3.6	3.6
Rated Power Input (kW)	3.48	2.1
Rated Current Input (A)	14.5	8.8
Electric Element Rating (W)	2,400	1,000
Refrigerant Type / Mass (g)	R290 / 680	R290 / 680
Net Weight (kg)	114	114
Max. Refrigerant Circuit Pressure (kPa)	3200	3200
Relief Valve Rating	1000kPa/10kW	1000kPa/10kW
Connections (Inlet, Outlet, PTR, Drainage & Anode)	¾"/ 20mm	¾"/ 20mm
Condensate Drain	¾"/ 20mm	¾"/ 20mm
Operating Ambient Temperature range with heat pump operation+	-5°C — 43°C	-5°C — 43°C
Power Supply	230 — 240V / 50Hz	230 — 240V / 50Hz

+The water heater operates using heating element outside this ambient range to heat the water.

MAKES SENSE... SAVES DOLLARS

When you purchase and install a Dux Ecosmart Pro-Series heat pump, you may be eligible for a variety of incentives that reduce your upfront cost.

Each incentive has eligibility requirements that need to be met.

There are a number of incentives for the Dux Ecosmart Pro-Series heat pump including but not limited to:

- Small-scale Technology Certificates (STCs) - www.cleanenergyregulator.gov.au
- NSW - Energy Saving Schemes (ESCs) - www.energy.nsw.gov.au
- VIC - Victorian Energy Upgrades Program (VEECs) - www.esc.vic.gov.au
- VIC- Victorian Solar Homes Program - www.solar.vic.gov.au
- ACT - Sustainable Household Low Interest Rate Finance Scheme - www.climatechoices.act.gov.au

Check with your council if additional rebates are available in your local area.

dux®

100 YEARS

MANUFACTURING **IN AUSTRALIA**

Call us on 1300 365 116 or visit

dux.com.au

*WARRANTY

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Solar Victoria's Solar Homes Program: Without limiting the stated warranty periods, a 5 year 'Whole of Product' warranty applies where a rebate has been received under Solar Victoria's Solar Homes Program for installations from 1 July 2023. Full warranty terms and conditions are in the product's Owners Manual, visit www.dux.com.au/warranty-terms to view or download.

#Based on 20ºC ambient air temperature and heating water from 20ºC to 60ºC. ‡Result based on performance testing of the Dux 270DHB36 model in accordance with AS/NZS 5125.1:2014 at 19ºC ambient air temperature and heating water from 20ºC to 60ºC.

Sales: **1300 365 116** Service: **1300 365 115** or visit **dux.com.au** for more.

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