

Quantum

ENERGY TECHNOLOGIES



SOLAR HOT WATER... *ON TAP DAY AND NIGHT*



Reliability Quality

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WHEN QUALITY & RELIABILITY MATTER ...

Quantum are the experts in Heat Pump Water Heating technology. With over 30 years experience and development, our Heat Pump Water Heaters have been tried and tested to perform reliably and efficiently - in even the harshest conditions throughout all of Australia.

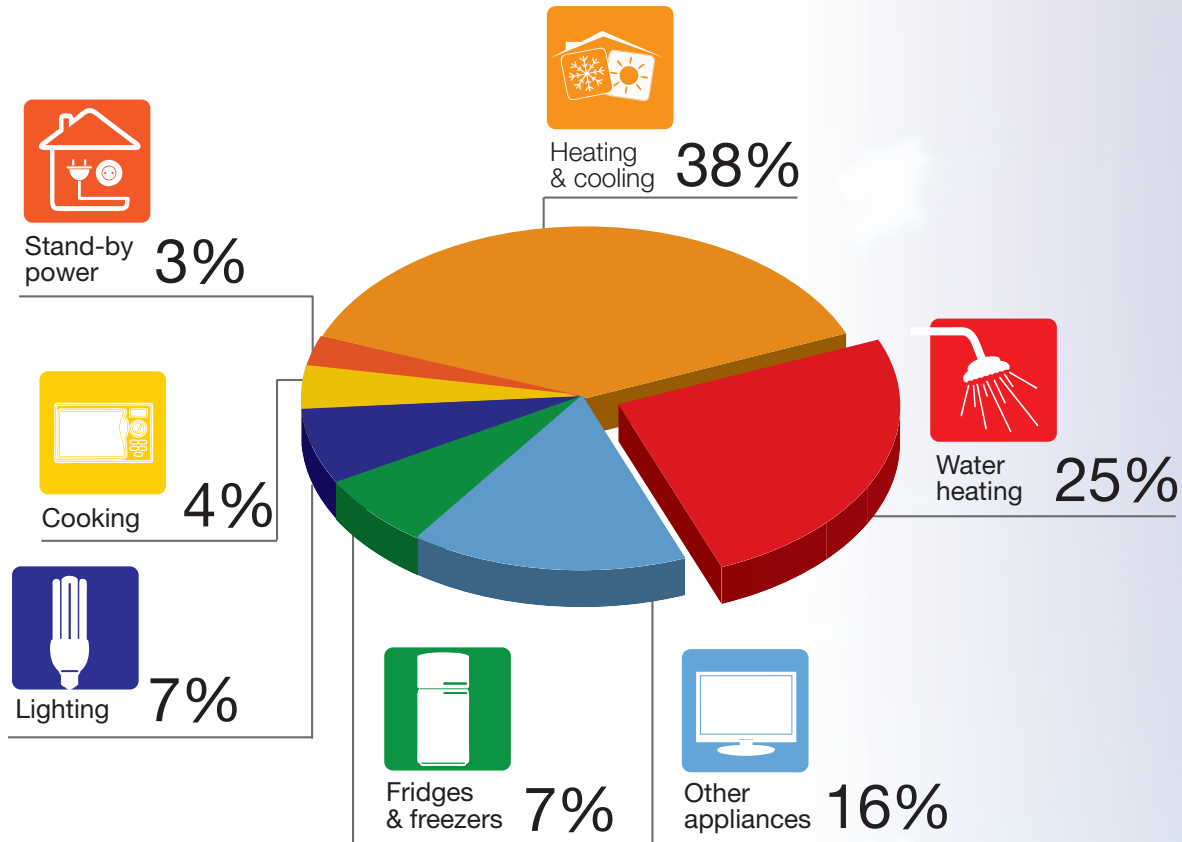
Our patented Tank Wrap technology, commitment to continuous development, and the ongoing subsequent introduction of market leading innovations, ensures that Quantum remain the number one choice of “those in the know” when it comes to Heat Pumps.

To meet the ever increasing demand of our customers and the Australian market, Quantum have now released a complete range of Electric Storage Hot Water Systems (HWS); with a strong focus on strength, performance, durability, and style. Our electric HWS will really outshine your existing system.

***With new features and styling, our new range
is sure to impress***

DID YOU KNOW?

Hot water heating can account for more than 30% of your homes' total energy usage, and is the single highest contributor to your annual electricity bills, using more energy than all of your other domestic appliances combined?



WHAT CAN YOU DO?

With rising energy costs and government incentives still available - it makes sense to upgrade to an energy efficient Solar Hot Water System (HWS)!

In Australia, between 50 and 95 per cent of your household hot water requirements can generally be supplied by a Solar HWS... Replacing an inefficient hot water system is one of the simplest, most economical, high impacting, carbon-reducing, opportunities available to the consumer today - which means that by installing one of our systems, you'll use far less energy, and dramatically reduce your household's footprint.

WHAT ARE MY OPTIONS?

Most people are aware of three ways to generate hot water – electric, gas and conventional solar; but there is a fourth, and it's one of the most efficient hot water systems available.... The Quantum Solar Heat Pump.

Our system can provide you with energy efficient solar hot water – without the need for roof panels!

SOLAR WITHOUT THE SUN

CONVENTIONAL SOLAR VS SOLAR HEAT PUMP

Solar HWS typically consists of collector panels or tubes which water flows through, connected to a storage tank. Water is heated by the sun and is pumped or flows between the tank and panel as hot water.

However, a Quantum Solar Heat Pump (unlike conventional solar HWS) makes use of the heat in the ambient air around the system, and a reverse refrigeration process to heat the water. This means WE DON'T NEED THE SUN to be shining, and what's more, it's so efficient that it can provide reliable hot water 24 hours a day, even in temperatures as low as -10°C . Only a Quantum can do that!



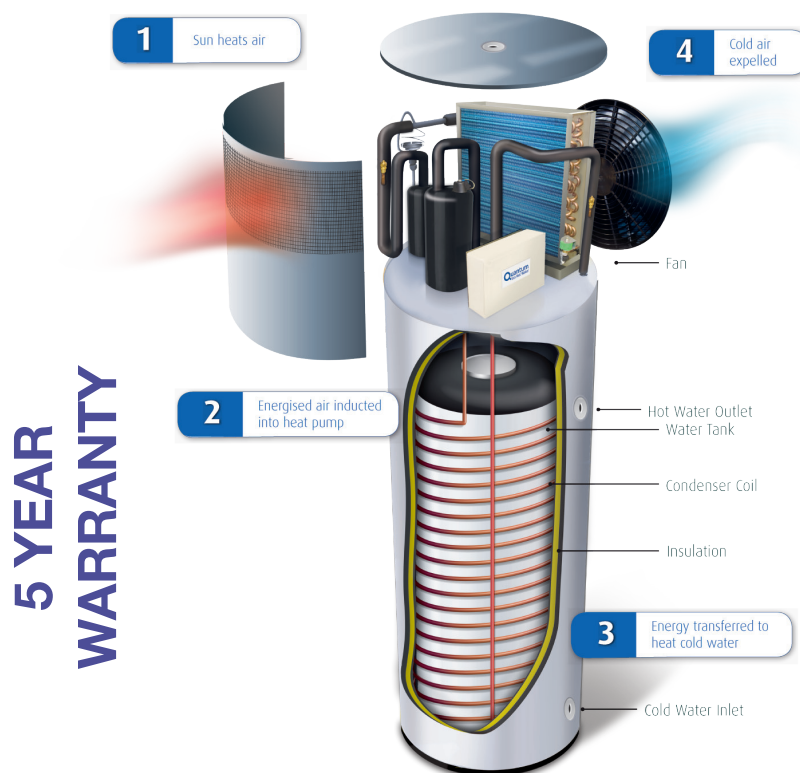
HOW DOES IT WORK?

A SIMPLE CONCEPT - BRILLIANTLY EXECUTED.

The Quantum Solar Heat Pump works on a patented refrigeration principle similar to that found in an air conditioner, or refrigerator – but in reverse.

- 1. SUN HEATS THE AIR** - Heat pumps rely on ambient air temperature rather than incidental sunshine. Utilising refrigeration principles, OUR heat pump can operate without direct sunlight, and can produce hot water in rain, hail or shine, without the need for a booster element!
- 2. ENERGISED AIR INDUCTED INTO HEAT PUMP** – Once the air has been drawn into the heat pump, this passes over the evaporator preheating the refrigerant (that boils at a very low temperature). This preheated refrigerant is then compressed causing its' temperature to be raised and superheating the refrigerant.
- 3. ENERGY TRANSFERRED TO HEAT COLD WATER** – using Quantum's PATENTED TANK WRAP TECHNOLOGY; this superheated refrigerant is guided through copper tubes (condenser) wrapped around the outside of the tank, turning the whole tank into a heat exchanger which heats the entire volume of water from the outside in.
- 4. COLD AIR EXPELLED** – Once the heat has been transferred to the water, the cold air is discharged from the heat pump via a fan, and the refrigerant liquid is forced back into the evaporator to start the process again until the water in the storage tank reaches the desired temperature.

2 YEAR WARRANTY





Not many household appliances can provide you a financial benefit, let alone pay for themselves – however a Quantum heat pump can do exactly that!

Once installed, a Quantum could save you thousands of dollars in energy bills compared to other forms of water heating, as well as reducing your greenhouse gas emissions, and reducing the environmental footprint of your home.

A SOLAR HOT WATER SYSTEM THAT PAYS FOR ITSELF

HOT WATER HEATING COST COMPARISON

Weekly Running Cost



WHATEVER THE TEMPERATURE

PROVEN PERFORMANCE OVER TIME

As the innovators and experts of heat pump technology, Quantum has the largest range of compact heat pumps available in Australia – enabling you to select the right solution for the right application.

Our extensive range of products can service single bedroom/ bathroom residences, right through to multi level offices, hotels, motels, resorts, recreational facilities, retails outlets; and everything in between. We can tailor a solution for your needs!

Installing a Quantum solar heat pump system is also very simple and almost identical to installing a regular electric hot water system. There are no roof panels or additional components, meaning an easy, trouble-free conversion from electric hot water to sustainable and reliable solar hot water for your home.



MODEL NUMBER	150-08AC6-290 Domestic Compact 150 Litre
Storage Sizes (Litres)	150
Rated Size (Litres)	130
Heat Output (kW)	3.61
Power Input (kW) (1)	0.84
COP of Heating (1)	4.3
Water Temp Setting	58°C
Maximum Tank Temp Setting	60°C
Compressor	Rotary
Refrigerant	R290
Electrical Supply (1)	
Circuit	10 Amps
Water Connections	
PT R Valve Setting	
Expansion Ctrl Valve (ECV) Setting	
PLV (without ECV fitted / with ECV fitted)	
Operating Sound Level at 1.5M	50dBA
Dimensions (Height x Diameter)	1620mm x 540mm
Nett (Empty) Weight	100kg
Ambient Air Operating Temperature	
Hot Water Production Rate L/hr (COP)	72 (4.30)

AMBIANT AIR	
35°C	110 (5.55)
30°C	98 (5.12)
25°C	85 (4.73)
20°C	72 (4.30)
15°C	58 (3.88)
10°C	48 (3.45)
5°C	38 (3.03)
0°C	31 (2.60)
-5°C	26 (2.18)
-10°C	24 (1.75)

Note (1): Rated at ambient 20°C and 60% RH, water heated from 20°C to 60°C.

Suitable for
Small Households

90 50 Litre	200-08AC6-290 Domestic Compact 200 Litre	270-08AC6-290 Domestic Compact 270 Litre	340-08AC6-290 Domestic Compact 340 Litre
	200	270	340
	175	250	315
	3.61	3.81	3.81
	0.84	0.84	0.84
	4.3	4.53	4.53
	58°C	58°C	58°C
	60°C	60°C	60°C
	Rotary	Rotary	Rotary
	R290	R290	R290
220-240V/50Hz/1Ph			
	10 Amps	10 Amps	10 Amps
3/4" BSP - 20mm			
1,000kPa			
850kPa			
500 - 600kPa / 350 - 500kPa			
	50dBA	48dBA	48dBA
n	1950mm x 540mm	1900mm x 650mm	2200mm x 650mm
	115kg	135kg	170kg
-10°C to +40°C			
	72 (4.30)	75 (4.53)	75 (4.53)

HOT WATER PRODUCTION RATE , LITRES PER HOUR (COP)

	110 (5.55)	113 (5.75)	113 (5.75)
	98 (5.12)	102 (5.42)	102 (5.42)
	85 (4.73)	89 (4.98)	89 (4.98)
	72 (4.30)	75 (4.53)	75 (4.53)
	58 (3.88)	61 (4.08)	61 (4.08)
	48 (3.45)	51 (3.64)	51 (3.64)
	38 (3.03)	42 (3.19)	42 (3.19)
	31 (2.60)	33 (2.75)	33 (2.75)
	26 (2.18)	29 (2.30)	29 (2.30)
	24 (1.75)	26 (1.86)	26 (1.86)

Suitable for
Small to medium
 Households

Suitable for
Average
 Households

Suitable for
Large
 Households



Electric Storage Water Heaters have long been a staple inclusion in the Australian family home.

Whilst new and alternative technologies are available to reduce energy costs, environmental impacts, and carbon omissions; we understand that in some instances these products may not be suitable.

That's why we've developed the **Quantum Premium Electric** Storage Water Heater range.

QUANTUM ELECTRIC HOT WATER SYSTEM



- **COMPLETE PRODUCT RANGE: 25L - 400L**
- **STYLISH BRUSHED ALUMINIUM FINISH**
- **DURABLE INCOLOY® HEATING ELEMENT**
- **DUAL HANDED ACROSS THE RANGE**
- **7 YEAR CYLINDER WARRANTY**

STYLISH GERMAN ALUMINIUM FINISH

We choose the best finishes for all aspects of our homes; why should our hot water system be any different? Quantum have sourced world class external finishing materials from Germany, with a primary focus on strength, aesthetics and style — to compliment the rest of your homes' appliances.

INCOLOY® HEATING ELEMENT

Incoloy® is a "Superalloy" designed for excellent corrosive resistance, in addition to superior strength at high temperatures. It is a more advanced material than that which is found in other traditional electric water heaters (copper). Our new Incoloy® Element will deliver your hot water, for an extended lifetime, being less susceptible to corrosion.



SYDNEY
MELBOURNE
BRISBANE
ADELAIDE
PERTH
DARWIN
HOBART

For more information about Quantum Energy and our range of solar heat pump and electric storage hot water systems, please contact our Customer Support Centre.

1800 383 888

www.quantumenergy.com.au



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