



THERMO MAX

# HP200



## Heat Pipe Vacuum Tube Solar Collector

A dry heat pipe collector for ease of installation and maintenance. The dry connection between manifold and tube means tubes can be easily fitted and replaced. A unique temperature limitation device gives added system protection. A choice between two temperature limits provides the perfect hot water solution for your home or business.

After over 25 years of manufacturing and development, Thermomax evacuated tube collectors are firmly established as a world leader in solar thermal products.

## Easy Installation

The unique 'plug and play' design of Thermomax solar collectors makes installation quick and easy. There is no need for heavy lifting equipment as tubes can be carried onto the roof individually. The collector is fixed to the roof by easy-fit brackets, which are simply fixed to the rafter.

## Performance and Savings

Designed specifically for Northern European climates, Thermomax products provide heat even in cold, windy or humid conditions

A superior vacuum in the tube, over a longer period of time

Supplies up to 70% of your annual hot water needs - reducing dependence on increasingly expensive fossil fuels

5 year standard warranty. 20 year warranty with a Kingspan Solar Accredited Installer

Works from dawn until dusk and throughout the year

30% more effective than flat plate collectors

Average 25-year lifespan

HP200 is a dry system for ease of installation and maintenance. The dry connection between manifold and tube means tubes can be easily fitted and replaced.

The vacuum inside each tube provides perfect insulation and therefore protects the system from outside influences such as cold and windy weather or high humidity. This vacuum insulation also ensures that the energy collected from the sun is very efficiently and effectively transferred into usable heat as there is minimal heat loss.

## Unique Feature - Temperature Limitation Devices

HP200 collectors contain a unique temperature limitation device for system protection, there are 2 types:

**1. Memory spring to limit temperature to 95°C**  
Ideal for domestic installations

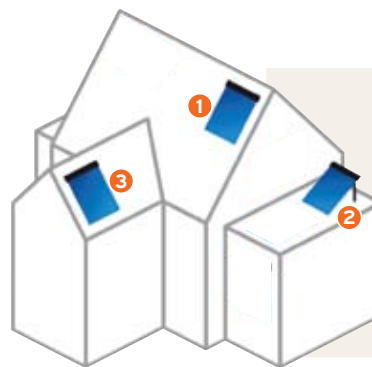
**2. Snap disk to limit temperature to 135°C**  
Ideal for commercial installations

### New improved snap disk\*

- Over 3.5% more efficient than before  
- now up to 81% optical efficiency
- More robust
- More reliable

This collector is referred to as HP250

## Installation Options



### Collector Positions

- 1 Ideal slope 40°
- 2 Roof kit angled 40°
- 3 Elevated 20°

## HP200 collectors are available in 3 different sizes - each one with the option of 2 different temperature limits.

In the table below, where there are 2 figures, HP200 is the first figure and has a limitation of 95°. HP250 is the second figure and has a limitation of 135°.

	HP200 / HP250		
	1m <sup>2</sup>	2m <sup>2</sup>	3m <sup>2</sup>
Number of Tubes	10	20	30
<b>Dimensions</b>			
Absorber Area (m <sup>2</sup> )	1.007	2.01	3.021
Overall Dimensions (mm)	2005 x 709 x 97	2005 x 1418 x 97	2005 x 2127 x 97
Width of Manifold (mm)	709	1418	2127
Length (tube and manifold) (mm)	2005	2005	2005
Depth (mm)	97	97	97
Aperture Area (m <sup>2</sup> )	1.07	2.16	3.23
Fluid Volume (ltr)	0.6	1.1	1.7
Inlet and Outlet Dimensions (mm)	22	22	22
Weight (empty) (kg)	25	50.3	75.1
<b>Mounting</b>			
Recommended Inclination (°)	20-70	20-70	20-70
<b>Performance Data</b>			
<b>Efficiency</b>	Based on Aperture	Based on Aperture	Based on Aperture
Eta 0	0.726	0.738	0.727
a1 (W/m <sup>2</sup> K)	1.55	1.17	0.85
a2 (W/m <sup>2</sup> K <sup>2</sup> )	0.0058	0.0082	0.0093
Solar Keymark Licence Numbers	HP200: 011-7S125R	HP250: 011-7S904R	
<b>Operating Data</b>			
Flow Rate (ltr/h)			
Rated	80	160	240
Minimum	60	120	180
Maximum	150	300	480
Maximum Operating Pressure	8 Bar	8 Bar	8 Bar
Stagnation Temperature (°C)	184 / 217	184 / 217	184 / 217
Heat Transfer Fluid	Water / Glycol	Water/Glycol	Water / Glycol
<b>Materials</b>			
Absorber	Copper	Copper	Copper
Coating	Selective Coating	Selective Coating	Selective Coating
Absorbance (%)	95	95	95
Emissivity (5)	5	5	5
Mounting Frame and Clips	Stainless Steel, Aluminium, EPDM	Stainless Steel, Aluminium, EPDM	Stainless Steel, Aluminium, EPDM
Glass	Low Iron - Transm. 0.92	Low Iron - Transm. 0.92	Low Iron - Transm. 0.92
Vacuum	<10 <sup>-4</sup> mbar	<10 <sup>-4</sup> mbar	<10 <sup>-4</sup> mbar
Temperature Limitation	95 / 135	95 / 135	95 / 135
Quality Certification/ Solar Keymark	Yes	Yes	Yes



KM 559829 BS EN 12975  
Thermal solar systems and components



Contact us now for further information

**Tel. +44 (0) 28 3836 4500** or email us at [info@kingspansolar.com](mailto:info@kingspansolar.com)

Kingspan Renewables Ltd, 180 Gilford Road, Portadown, Northern Ireland, BT63 5LF [www.kingspansolar.com](http://www.kingspansolar.com)