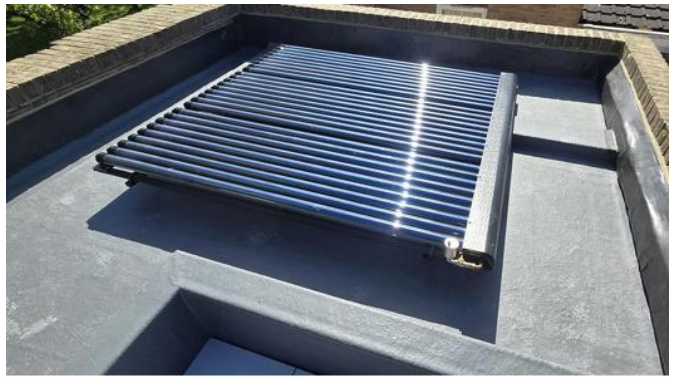
We have built a solid reputation for delivering highly efficient solar systems over the past 25 years.

Working with our clients to help them decarbonise their operations drives us to be innovative and professional across all aspects of our work, always looking at ways in which we can help drive down their energy costs and increase energy stability & security.

This brochure summarises our residential solar thermal system: LaZer2
There is more information on our website at www.solaruk.com or www.laZer2.co.uk

SOLAR UK
SINCE 2000

SOLAR THERMAL



LaZer2 solar thermal is specifically designed to produce hot water.

SOLAR THERMAL

Our LaZer2 solar collector is one of the most efficient in the world. We have designed our collectors, which are manufactured at our factory in East Sussex, to be c.3.5 to 4 times more efficient at generating hot water than the equivalent area of solar PV and they can deliver c.70% of your hot water demand each year.

- Audited annually by the UK government's BBA to ensure LaZer2 remains an approved technology
- Delivering temperatures of above 60C
- LaZer2 solar thermal delivers hot water to site for immediate point-of-use or as a pre-heat for wider applications
- As a pre-heat during winter months, energy savings are still strong, as water can be regularly pre-heated to 40-50C meaning the backup heating often only needs to input ½ the total energy otherwise required

Efficiency of a LaZer2 solar thermal system hardly drops when delivering water at 60c, and when combined with a heat pump it significantly increases the pump's service life, as well as retaining the fuel saving advantage, with summer solar gain almost eliminating heat pump usage for ½ the year.

Significant Carbon Reduction for UK Homes

LaZer2 solar thermal cuts household carbon emissions by c.25–35%, making it one of the most effective low-carbon heating upgrades. Generating heat directly, solar thermal is a zero-carbon technology at point of use.
Why this matters:
Space and water heating make up over one-third of the UK's total emissions
Solar thermal provides a direct and reliable way to decarbonise domestic hot-water use

EXAMPLE INSTALLATION

Solar UK designed and installed this solar thermal system in accordance with a Coull Architecture specification.
The solar thermal array was mounted on the flat roof in a single array design of 3 x LaZer2 collectors. Measuring W: 2110mm x D: 1845mm and weighing 126kg, with insulated 16mm pipe work traveling from the collectors to the existing 180-litre Twin-coil hot water cylinder

Wall mounted controllers were installed to monitor system temperatures via sensors, and control the circulating pump to ensure that the maximum amount of solar energy is transferred to the cylinder. The pump station included an expansion vessel, filling loop, flow meter, pump, pressure gauge and one-way valve.
We estimate the system we have designed will produce 1,612kWh/a which should provide around 50-70% of the annual domestic hot water requirement.

EXAMPLE INSTALLATION

The customer contacted us explaining that he wanted solar thermal for his hot water on his new extension building project.
We designed, supplied, and installed a 6-Collector LaZer2 solar water heating system for the property. The array measured W: 4228mm x D: 1845mm and weighed 276kg. A wall mounted controller monitors the system temperatures via sensors, and controls the circulating pump to ensure that the maximum amount of solar energy is transferred too the cylinder. The pump station which included: expansion vessel, filling loop, flow meter, pump, pressure, gauge and one-way valve was wall mounted above the cylinder. We estimate the system we have designed will produce 1,947 kWh/a which should provide around 50-70% of the annual domestic hot water requirement.

Based in East Sussex, Solar UK have been installing solar PV and solar thermal in the UK and Europe for 25 years. Solar UK manufactures, supplies, installs and maintains fully accredited, advanced solar systems specifically for the UK climate.
As well as being trusted suppliers and installers to both domestic and commercial customers, Solar UK is also one of the UK's leading solar research and development companies.

EXAMPLE INSTALLATION

This system comprised a 6-Collector LaZer2 solar water heating system for the client's property/pool. The flat roof array measured W: 2210mm x D: 2460mm and weighed 172kg. The pitched roof array measured W:2210mm x D: 1230mm and weighed 96kg.
We utilised a 70kW pool heat exchanger that we located in the pool plant room. The pump station included an expansion vessel, filling loop, flow meter, pump, pressure gauge and one-way valve.

Based in East Sussex, Solar UK have been installing solar PV and solar thermal in the UK and Europe for 25 years. Solar UK manufactures, supplies, installs and maintains fully accredited, advanced solar systems specifically for the UK climate.
As well as being trusted suppliers and installers to both domestic and commercial customers, Solar UK is also one of the UK's leading solar research and development companies.

LaZer2 solar thermal

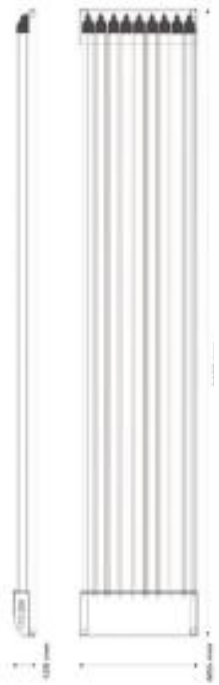
The LaZer2 solar thermal collector is an established market leader, built at our factory in East Sussex and designed specifically for the Northern European climate.

LaZer2 can be specified as part of a building's decarbonisation strategy, in both commercial and domestic use.

The LaZer2 collectors can be mounted on both sloping and flat roofs, and on a building façade (subject to structural integrity testing).

- BBA certified – British Board of Agrement
- MCS-approved
- Tested to EN12975 for both performance and quality
- 10-year product warranty
- 25-year performance warranty*

* When serviced annually by our engineers



PERFORMANCE AND PHYSICAL SPECIFICATIONS

Absorber Area:	0.80m²	**Design Life:**	>25 years
Aperture Area:	0.93m² (1m²)	**Vacuum Tube:**	High Borosilicate Glass
Gross Area:	1.35m²	**Tube Diameter:**	58mm
Total Length:	2100mm	**Tube Length:**	1960mm
Total Width:	605mm	**Vacuum:**	P = 5 x 10^{-2} Pa
Total Depth:	108mm	**Absorber:**	AL-N/AL
Total Depth incl. manifold:	125mm	**Efficiency:**	> 93% (optimum)
Total Weight:	43kg	**Operating Pressure:**	<6 bar
Absorber Plate Angles:	360°	**Max. Idle. Temp.:**	239°C
Fluid Outlet Temp.:	0-90°C	**Tube Strength:**	Tested to withstand a 25mm hailstone.

Solar UK, established 2000, brings a breadth of knowledge and experience to help deliver your new energy project.

We are CHAS Elite, MCS, Trustmark and NICEIC-accredited suppliers and installers, with in-house R&D, design, and technical support.

We employ our own installations team, working with trusted sub-contracted labour when there is a need, ensuring that they always work to our standards and under our management.

Solar UK - Head Office & Manufacturing
Vantage Point
North Trade Road
Battle
East Sussex, UK.
TN33 9LJ

01424 772903

sales@solaruk.com
solaruk.com