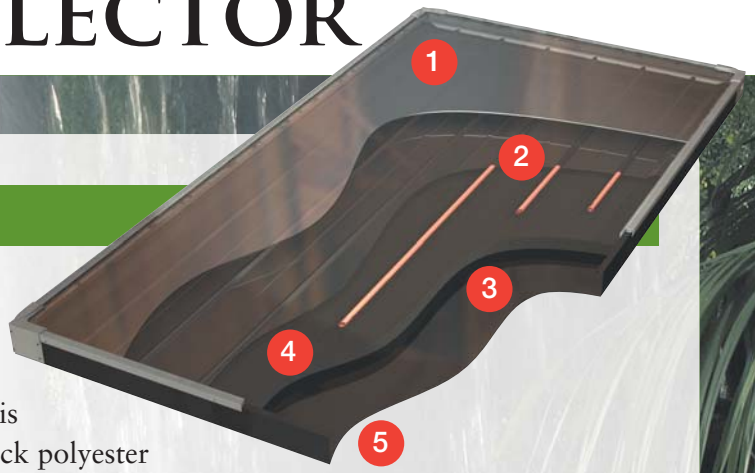


LC & LCS COLLECTOR



Description

Solahart commercial solar hot water systems can be supplied with either the Solahart LC or LCS collector panel.

Designed for high radiation areas, the LC Collector is constructed using an aluminium absorber with a black polyester coating to absorb the sun's energy. The aluminium casing is lined with heavy insulation to minimise heat loss, whilst the low iron, tempered glass allows the maximum amount of solar energy to be received by the absorber.

The LC Collector is an efficient and yet low cost option for use in high radiation areas. The LCS collector on the other hand, is a high efficiency variant of the LC, utilising a premium sputtered selective surface and glass wool insulation to gain a substantial performance boost with minimal cost impact.

Image Key:

1. Low iron Satin Matt/Satin Lite Tempered Glass: Maximises available solar radiation.
2. Sputtered Aluminium Selective Surface Absorber Plate (LCS): improves solar gain with very low emittance values.
3. Insulation: reduces heat loss and improves performance.
4. 6 Copper Risers: used for its excellent corrosion resistance and heat transfer properties
5. Aluminium Tray provides all weather protection to the collector internals.

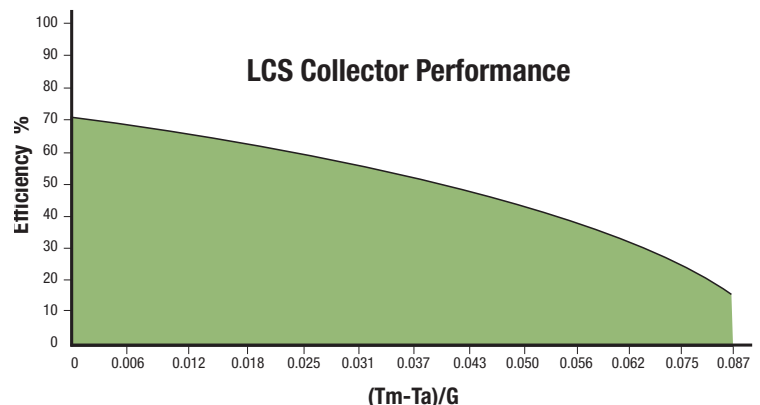
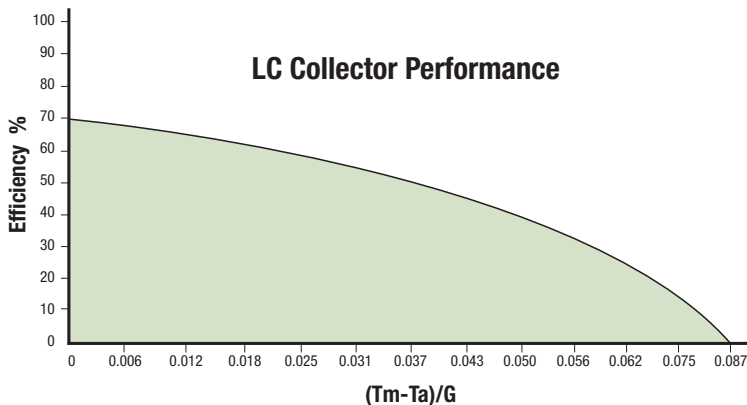
Key Features

- Easy installation
- Can be installed portrait or landscape
- Can be installed on facade
- Peace of mind with 5/1/1 year conditional warranty
- Up to 8 collectors in one array
- LCS Certified with the European quality label 'Solar Keymark'



Key Benefits

- Reliable and durable
- High performance
- Reliable, low maintenance operation
- Choice of performance options



LC and LCS Collector

CASING	
LC & LCS Collectors	
Casing type:	Folded Aluminium tray
Casing material:	0.7 mm (23 gauge) Marine grade Aluminium H3004 Temper H32
Drain/Vent holes:	4.0 mm Formed recessed holes, one in each corner 15.0 mm from each edge

GLASS	
LC & LCS Collectors	
Material:	One sheet of low-iron tempered glass
Iron content:	0.04% maximum
Transmittance:	Minimum solar radiation transmittance 89% to standard ANS 1297-1975, BS 6206A and JIS R3206
Temper:	Tempered to AS 2208-1996 and US federal specification DDG403C
Weight:	16 kg

INSULATION MATERIAL		
Size & density:	LC Collector	LCS Collector
Back:	Polyester Black - 38 mm thick, 14 kg/m ³	Glass Wool - 38 mm thick, 12 kg/m ³
Edge:	Polyester Black - 28 mm thick, 32kg/m ³	Polyester Black - 28 mm thick, 32kg/m ³

ABSORBER		
	LC Collector	LCS Collector
Type:	Flat plate and tube	Flat plate and tube
Absorber plate material:	Aluminium	Aluminium
Absorber plate dimensions:	1,840mm x 980mm x 0.8mm	1,840mm x 980mm x 0.50mm
Absorber plate surface finish:	Black Powder Coated	Sputtered surface (Titanium Oxide)
Absorptive:	$\alpha = 0.94 (\pm 0.02)$	$\alpha = 0.94 (\pm 0.02)$
Emittance:	$\epsilon = 0.82 (\pm 0.02)$	$\epsilon = 0.05 (\pm 0.02)$

COLLECTOR MEASUREMENTS	
LC & LCS Collectors	
Overall dimensions:	1,941mm x 1,027mm x 83mm
Glass size:	1,925mm x 1,010mm x 3.2mm
Window aperture:	1,905mm x 985mm
Aperture area:	1.86 m ²
Ratio: aperture to gross area	0.963

WEIGHTS & MEASURES	
LC & LCS Collectors	
Weight empty:	30 kg
Weight full:	32 kg
Test pressure:	300 kPa
Maximum working pressure:	1,400 kPa
Recommended flow rate	1.25 lt/min

TUBE ARRAY	
LC & LCS Collectors	
Header to riser joint:	Silver solder brazed
Header material:	Type C-copper tube, to AS 1432-1973
Header size:	ϕ 25.4 OD, 0.91 mm wall thickness
Riser material:	Type C-copper tube, to AS 1432-1973
Riser size:	ϕ 12.7 mm OD, 0.71 mm wall thickness
Spacing between risers:	148mm
Number of risers:	6
Collector socket material:	Free machining brass
Collector socket thread size:	Female thread $\frac{3}{4}$ " BSP
Type of connection:	Solahart Teflon coated brass cone
Maximum torque:	0.03 kN-m
Thermal bond:	Optimised stapled design for high performance

Your local distributor