



## Thermosiphon LCSD Series

### Description

The Solahart LCSD Series is a roof mounted, open circuit system, designed to provide higher efficiency for use in low to medium solar gain areas.

The LCS collector features an aluminium absorber plate with all copper header and risers. The LCS collector's absorber plate is coated with the Mirotherm<sup>®</sup> sputtered selective surface, widely used throughout the growing solar hot water markets in Europe. The Mirotherm absorption and anti-reflection layers provide high solar absorption and an infrared reflecting layer ensures low thermal emission, making the most of the available solar radiation.



The double ceramic lined tank has a protective sacrificial anode and the Free Heat models feature additional anode protection. The tank is equipped with an electric booster, alternatively an inline gas booster is available.

These systems are installed with the TRV (thermosiphon restrictor valve) OTP (over temperature protection) system to prevent over performance during periods of higher solar radiation and lower hot water draw off.

### Key Features

- Efficient Mirotherm<sup>®</sup> Sputtered Selective Surface collector for high heat absorption
- Toughened, impact resistant collector glass
- Thermosiphon operation minimises maintenance
- Double coated ceramic lined tank
- Stylish slimline design
- Gas booster or electric booster models available
- Enhanced protection on Free Heat models

### Key Benefits

- Can save up to 55% to 90% of water heating energy consumption\*
- Reliable, low maintenance operation
- Hot water regardless of the weather
- Qualifies for valuable environmental incentives\*
- Reduced energy use can save up to 2.1 to 3.3 tonnes of CO<sub>2</sub> per annum\*
- Peace of mind with 10/5/5 (Free Heat) and 5/5/5 year warranties†

\* Energy savings of up to 55% to 90% shown are based on Australian Government approved TRNSYS simulation modelling using a medium load. Savings and incentives will vary depending upon your location, type of Solahart system installed, orientation and inclination of the solar collectors, type of water heater being replaced, hot water consumption and fuel tariff. Maximum financial savings off your hot water bill are achievable when replacing an electric water heater on continuous tariff. Refer to [solahart.com.au](http://solahart.com.au) for further information.

† Solahart Warranty Details: 10/5/5 warranty, 10 years cylinder and collectors supply, 5 years parts, 5 years labour; 5/5/5 warranty, 5 years cylinder and collectors supply, 5 years parts, 5 years labour.

# Thermosiphon LCSD and LCSD Free Heat Open Circuit Systems

These systems are suitable for multiple installations. They are not suitable for frost and harsh water regions<sup>^</sup>.

LCSD and LCSD Free Heat Systems			
Model		300 tank	302 system
<b>Tank Model</b>			
LCSD Series		300L	✓
LCSD Free Heat		300LF	✓
<b>Collector model</b>			LCS
<b>No. of collectors</b>	–	–	2
<b>TRV OTP</b>			✓**
<b>Storage capacity</b>	litres	300	300
<b>Boost capacity</b>	litres	150	150
<b>Weight</b>	<b>empty</b>	kg	81
	<b>full</b>	kg	381
<b>A - Width*</b>	m	2.43	2.48

\* An additional 0.9m should be left on all four sides of the installation for safe access and servicing.

\*\*TRV OTP is mandatory on these models in Australia and New Zealand.

LCS Collector			
<b>Aperture area</b>		m <sup>2</sup>	1.87
<b>Dimensions</b>	<b>length</b>	mm	1937
	<b>width</b>	mm	1022
	<b>height</b>	mm	77
<b>Capacity</b>		litres	2.0
<b>Weight</b>	<b>empty</b>	kg	30
	<b>full</b>	kg	32
<b>Working pressure</b>		kPa	1000
<b>Absorber surface</b>	Mirotherm sputtered selective surface		
<b>Absorber material</b>	Aluminium		
<b>Riser material</b>	Copper		
<b>Number of risers</b>	6		
<b>Tray material</b>	0.7mm aluminium		
<b>Insulation material</b>	<b>base</b>	38mm glasswool blanket	
	<b>sides</b>	Polyester blanket	
<b>Glass</b>	3.2mm tempered low iron		

Water Supply		
<b>TPR valve setting</b>	kPa	1000
<b>ECV* setting</b>	kPa	850
<b>Max. supply pressure with ECV without ECV</b>	kPa	680
	kPa	800
<b>Water Connections</b>	cold	RP¾/20
	hot	RP½/15

\*Expansion Control Valve (ECV).

Electric Boost Specifications				
<b>Heating unit type*</b>		Copper sheath immersion element		
<b>Supply voltage</b>		220 - 240 Volts (50 Hz)		
Recovery rate @ 240V and temperature rise of:				
Rating kW	Current amps	30°C litres/hour	40°C litres/hour	50°C litres/hour
1.8	7	51	38	31
2.4	10	68	52	41
3.6	15	103	77	62

**Energy Tip:** When installing your solar water heater, install minimum 3 star rated shower roses and flow restrictors to your taps if you don't already have them. This will not only save water but make your solar savings go further.

These systems, combined with the TRV OTP system, can be installed with a Solahart inline gas booster water heater. Refer to the gas booster specification sheet for further details on the gas booster.

Technical data is subject to change.

Mirotherm® is a registered trademark of Alanod Solar GmbH & Co. KG

<sup>^</sup>Harsh water regions – the Solahart warranty may not apply to the water heater if it is connected to a water supply which: is scaling with a Saturation Index >+0.8, or: is corrosive with a Saturation Index <-1.0, or: has a Total Dissolved Solids content >2500 mg/L.

