

LCSC SERIES



Description

The Solahart LCSC Series is a roof mounted, closed circuit system suitable for frost prone or harsh water areas, 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® 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, with its protective anode, has been developed for long life and the Free Heat models feature additional anode protection for longer lasting performance. The tank can be equipped with an electric or gas booster, alternatively an inline gas booster is available.

These systems are installed with the HartStat 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® Sputtered Selective Surface collector for high heat absorption
- Toughened, impact resistant collector glass
- Closed circuit operation makes it suitable for frost prone or harsh water areas
- Thermosiphon operation minimises maintenance – no moving parts
- Double coated ceramic lined tank for long life
- Stylish slimline design
- Two gas booster options or electric booster models available
- Enhanced protection on Free Heat models for maximum life

Key Benefits

- Save 55% to 85% of your water heating energy consumption*
- Reliable, low maintenance operation
- Hot water regardless of the weather
- Can qualify for valuable government environmental incentives*
- Reduced energy use saves up to 3.3 tonnes of CO₂ emissions every year*
- Peace of mind with 10/5/5[†] (Free Heat) and 5/5/5[†] year warranties

*Savings of 55% - 85% shown are based on Australian Government approved TRNSYS simulation modelling. 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.

†Warranty Details: 10/5/5 warranty, 10 years cylinder and collectors, 5 years parts, 5 years labour; 5/5/5 warranty, 5 years cylinder and collectors, 5 years parts, 5 years labour; applies to a single family domestic dwelling only. All other applications have a 5/1/1 (Free Heat) or 3/1/1 warranty; 5 or 3 years cylinder, 1 year parts, 1 year labour.

Thermosiphon LCSC and LCSC Free Heat Closed Circuit Systems

These systems are suitable for multiple installations. They are suitable for frost and harsh water regions.

LCSC and LCSC Free Heat Systems

Model		300 tank	302 system	303 system
Tank Model				
LCSC Series		300J	✓	✓
LCSC Free Heat		300F	✓	✓
Collector model			LCS	LCS
No. of collectors	–	–	2	3
HartStat OTP			✓**	✓**
Storage capacity	litres	300	300	300
Delivery capacity solar	litres	260	260	260
Boost capacity	litres	150	150	150
Weight empty	kg	99	163	195
Weight full	kg	399	467	501
A – Width*	m	2.43	2.43	3.38
B – Length*	m	0.51	2.63	2.63

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

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

LCS Collector

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

Water Supply

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

*Expansion Control Valve (ECV).

Electric Boost Specifications

Heating unit type*	Copper sheath immersion element			
Supply voltage	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

Gas Boost [In Tank - Optional] Specifications

Model type*	FD15 gas booster fan forced
Burner rating - input/output	13MJ/h / 10MJ/h (2.8kW)
Recovery rate	59 litres per hour @ 40°C rise
Primary voltage	220V - 250V
Secondary voltage	12V AC

* Suitable for hard or corrosive water areas

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 HartStat 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. 2010 January.

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

Dimensions

