



Thermosiphon L Series

Description

The Solahart L Series is a roof mounted, open circuit solar water heater specifically designed to provide economical service in medium to high solar gain areas.

The L Series is ingenious in its simplicity. The black polyester powder coated aluminium absorber collects the sun's heat and transfers it to the water in the risers. Copper is used for the risers for its high thermal conductivity ensuring the maximum amount of heat energy is passed to the water. As the water in the risers is heated, it rises into the tank to be replaced by cooler water from the tank. The solar heated water is then stored ready for use - hot water free from the sun.



The L Series has a double coated ceramic lined tank with a protective sacrificial anode. The L Free Heat features additional anode protection.

L and L Free Heat systems can be installed with an optional TRV over temperature protection system to prevent over performance during periods of higher solar radiation and lower hot water draw off.

Key Features

- Stylish slimline design
- Thermosiphon operation minimises maintenance
- Gas or electric booster models available
- Double coated ceramic lined tank
- Enhanced protection on Free Heat model
- TRV over temperature protection available
- Free Heat series available in 180 and 300 litre capacities

Key Benefits

- Can save up to 50% to 85% 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 1.8 to 3.0 tonnes of CO₂ emissions per annum*
- Peace of mind with 10/5/5 (L Free Heat) and 5/5/5 (L Series) year warranties[†]

* Energy savings of up to 50% to 85% 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 for further information.

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

Thermosiphon L and L Free Heat Open Circuit Systems

These systems are suitable for multiple installations. They are not suitable for frost or harsh water regions.

L and L Free Heat Systems

Model		150 tank	151 system	180 tank	181 system	182 system	220 tank	221 system	222 system	300 tank	301 system	302 system	303 system	440 tank	443 system	444 system
Tank model		150L	✓	180L	✓	✓	220L	✓	✓	300L	✓	✓	✓	440L	✓	✓
L Free Heat		-	-	180LF	✓	✓	-	-	-	300LF	✓	✓	✓	-	-	-
Collector model			L		L	L		L	L		L	L	L		L	L
No of collectors			1		1	2		1	2		1	2	3		3	4
Storage capacity	litres US gal	150 40	150 40	180 48	180 48	180 48	220 58	220 58	220 58	300 80	300 80	300 80	300 80	440 116	440 116	440 116
Boost capacity (electric)	litres US gal	75 20	75 20	90 24	90 24	90 24	110 29	110 29	110 29	150 40	150 40	150 40	150 40	220 58	220 58	220 58
Weight empty	kg lbs	49 108	86 190	55 121	92 203	125 276	64 141	101 223	138 304	81 179	118 260	151 333	184 406	124 273	228 503	260 573
Weight full	kg lbs	199 439	239 527	235 518	275 606	311 686	284 626	324 714	364 802	381 840	421 928	457 1008	493 1087	564 1243	676 1490	712 1570
A – Width*	m in	1.40 55.1	1.45 57.1	1.62 63.8	1.67 66.8	2.37 93.3	1.88 74.0	1.99 78.4	2.20 86.6	2.43 95.7	2.48 97.6	2.48 97.6	3.37 132.7	3.41 134.3	3.49 137.4	4.44 174.8
B – Length*	m in	0.51 20.1	2.53 99.6	0.51 20.1	2.53 99.6	2.53 99.6	0.51 20.1	1.72 67.7	2.53 99.6	0.51 20.1	1.72 67.7	2.53 99.6	2.53 99.6	0.51 20.1	2.53 99.6	2.53 99.6

* An Additional 0.9m (35.4in) should be left on all four sides of the installation for safe access and servicing.

The L and L Free Heat systems (if installed with a TRV system) can be installed as a solar preheater with a Solahart inline gas booster water heater. Refer to the Solahart gas booster specification sheet for further details on the gas booster.

L Collector

Aperture (heating) area	m ²	1.87	ft ²	20	
Dimensions	length	mm	1937	in	76.3
	width	mm	1022	in	40.3
	height	mm	77	in	3.0
Capacity	litres	3	US gal	0.8	
Weight*	empty	kg	32	lbs	71
	full	kg	34	lbs	75
Working pressure	kPa	1000	psi	145	
Absorber surface	Black polyester powder coat				
Absorber material	Aluminium				
Riser material	Copper tube				
Tray material	0.7 mm aluminium				
Insulation material - base	38 mm polyester blanket				
Glass	3.2 mm tempered low iron				

* Weight includes fittings

Electric Boost Specifications

Heating unit type	Copper sheath immersion element			
Supply voltage	220 V – 250 V			
Recovery rate (litres/hour) @ 240 V and temperature rise of:				
Rating kW	Current Amps	30°C litres/hour	40°C litres/hour	50°C litres/hour
1.8	8	51	39	31
2.4	10	68	52	41
3.6	15	103	77	62
4.8	20	137	103	83

Water Supply

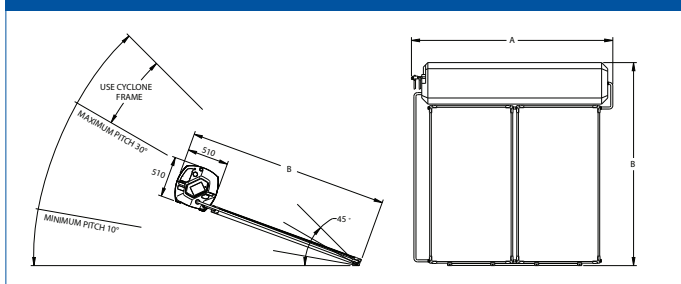
TPR valve setting	kPa	1000	psi	145
ECV* setting	kPa	850	psi	125
Max. supply pressure with ECV	kPa	680	psi	100
	kPa	800	psi	115
Water Connections	cold	Rp 3/4		
	hot	R 1/2		

*Expansion Control Valve.

Technical data is subject to change.

^Harsh water regions - the Solahart warranty may not apply if the water heater 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 Solid content >2500mg/L.

L and L Free Heat



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.