



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																
L		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	150	150	180	180	180	220	220	220	300	300	300	300	440	440	440
	US gal	40	40	48	48	48	58	58	58	80	80	80	80	116	116	116
Boost capacity	litres	75	75	90	90	90	110	110	110	150	150	150	150	220	220	220
(electric)	US gal	20	20	24	24	24	29	29	29	40	40	40	40	58	58	58
Weight empty	kg	49	86	55	92	125	64	101	138	81	118	151	184	124	228	260
	lbs	108	190	121	203	276	141	223	304	179	260	333	406	273	503	573
Weight full	kg	199	239	235	275	311	284	324	364	381	421	457	493	564	676	712
	lbs	439	527	518	606	686	626	714	802	840	928	1008	1087	1243	1490	1570
A – Width*	m	1.40	1.45	1.62	1.67	2.37	1.88	1.99	2.20	2.43	2.48	2.48	3.37	3.41	3.49	4.44
	in	55.1	57.1	63.8	66.8	93.3	74.0	78.4	86.6	95.7	97.6	97.6	132.7	134.3	137.4	174.8
B – Length*	m	0.51	2.53	0.51	2.53	2.53	0.51	1.72	2.53	0.51	1.72	2.53	2.53	0.51	2.53	2.53
	in	20.1	99.6	20.1	99.6	99.6	20.1	67.7	99.6	20.1	67.7	99.6	99.6	20.1	99.6	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		m²	1.87	ft²	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

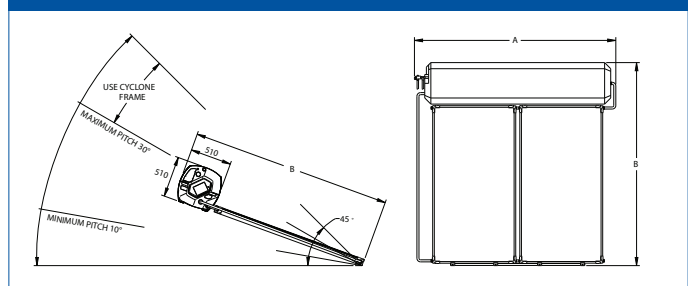
TPR valve setting	kPa	1000	psi	145
ECV* setting	kPa	850	psi	125
Max. supply pressure with ECV	kPa	680	psi	100
without ECV	kPa	800	psi	115
Water Connections	cold	Rp 3/4		
	hot	R 1/2		

*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.