



ROOF-MOUNTED DIRECT SYSTEMS

L SERIES - OPEN CIRCUIT THERMOSIPHON

Solahart L Series is a solar water heater specifically designed to provide economical service in medium to high solar gain areas. The black polyester powder coated aluminium absorber collects the sun's heat and transfers it to the water in the copper risers. The increase in temperature causes it to rise and move into the storage tank where it displaces cooler water which then travels back into the solar collectors to be heated by the sun.

The tank features **Solahart Super-Shield**[®] enamel for enhanced protection, as well as a protective sacrificial anode to improve the life of the tank. Free Heat models also feature a larger anode for enhanced tank protection.

L systems can be installed with an optional Thermosiphon Restrictor Valve (TRV), an over-temperature protection system, to restrict over performance during periods of high solar radiation and lower hot water draw off.

These direct systems have no frost protection and are not suitable for harsh water regions.[^]



GAS OR ELECTRIC BOOSTING FOR HOT WATER REGARDLESS OF THE WEATHER

HOW YOU BENEFIT



OPTIMAL PERFORMANCE

Our most popular system, designed for **medium to high** solar gain areas.



LOW MAINTENANCE

Elegant simplicity provides efficiency, reliability and low maintenance, as it does not require a pump to circulate the water.



REDUCE ENERGY USE

Water heating energy use may be reduced by up to 50% to 85% and could save up to 1.4 to 2.7 tonnes of CO₂ emissions per annum when replacing an electric water heater.[#]



SOLAHART WARRANTY

5-year parts and labour warranty and a 10-year warranty on Free Heat models, for peace of mind.*

Technical Data

MODELS		L / L FREE HEAT - DIRECT SYSTEMS (Free Heat systems are only available in 300 litres)		
Systems		181L	302L	303L
Tank model	Standard	180L	300L	300L
	Free Heat	-	300LF	300LF
Collector	Model	L	L	L
	Number	1	2	3
Storage capacity	litres	180	300	300
	US gal	48	80	80
Boost capacity	litres	90	150	150
	US gal	24	40	40
Tank Only: Weight empty	kg	62	91	91
	lbs	137	201	201
Tank Only: Weight full	kg	242	391	391
	lbs	553	862	862
Tank Only: A - Width ⁽¹⁾	m	1.62	2.43	2.43
	in	63.8	95.7	95.7
Tank Only: B - Length ⁽¹⁾	m	0.51	0.51	0.51
	in	20.1	20.1	20.1
System: Weight empty	kg	97	156	188
	lbs	214	344	419
System: Weight full	kg	279	460	493
	lbs	615	1015	1087
System: A - Width ⁽¹⁾	m	1.67	2.48	3.37
	in	66.8	97.6	132.7
System: B - Length ⁽¹⁾	m	2.53	2.53	2.53
	in	99.6	99.6	99.6

Collectors		L Collectors	
Aperture (heating) area	m ²	1.87	
	ft ²	20	
Dimensions	length - mm / in	1943 / 76.5	
	width - mm / in	1027 / 40.5	
	height - mm / in	83 / 3.3	
Working pressure	kPa	1000	
	psi	145	
Capacity	litres	1.5	
	US gal	0.4	
Weight empty	kg	29	
	lbs	64	
Weight full incl. fittings	kg	32	
	lbs	71	
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		

⁽¹⁾ For safe access and servicing, a space equal to the tank length should be left on the water connection end of the system and 1m (40in) should be left on the three other sides of the installation.

Water Supply		
TPR valve setting	kPa	1000
	psi	145
Expansion Control Valve (ECV) setting	kPa	850
	psi	125
Max. supply pressure with ECV	kPa	680
	psi	100
Max. supply pressure without ECV	kPa	800
	psi	115
Water connections	cold	Rp 3/4
	hot	R 1/2

ENERGY TIP

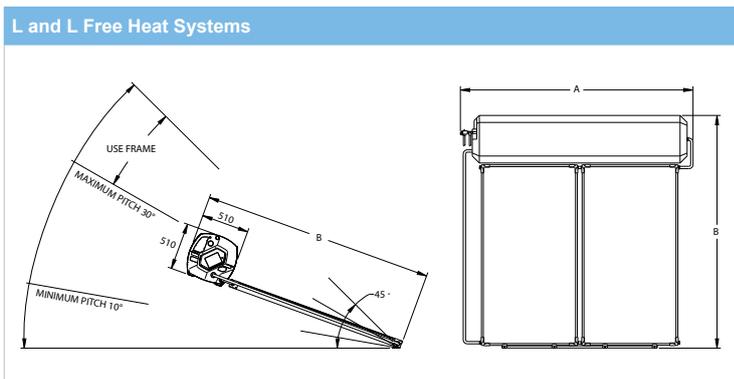
When installing your solar water heater, install minimum 3-star rated shower roses and flow restrictors to your taps if you don't already have them. Doing this will not only save water but make your solar savings go further.

* Energy savings of up to 50% to 85% shown are based on Australian Government approved TRNSYS simulation modelling using a medium load. Savings 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 more information.

* Solahart Warranty Details: 10/5/5 warranty, 10 year cylinder and collector supply, 5 year parts, 5 year labour; 5/5/5 warranty, 5 year cylinder and collector supply, 5 year parts, 5 year labour; applies only when installed as a complete new system.

^ 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 Solids content >2500mg/L.

Electric Boost Specifications				
Heating unit type	Copper sheath immersion element			
Supply voltage	220 V - 250 V			
Recovery rate @ 240 V temperature rise of:				
Rating kW	Current Amps	30°C litres/hour	40°C litres/hour	50°C litres/hour
1.8	7.5	51	39	31
2.4	10	68	52	41
3.6	15	103	77	62



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

Specifications and designs included in this data sheet are subject to change without notice.

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Reorder code: SHDS/SHW-L

IH0113_L_Series_May 2018

