

ROOF-MOUNTED DIRECT SYSTEMS

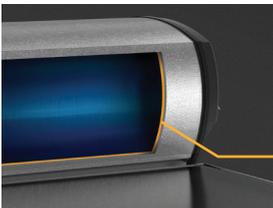


L FREE HEAT SERIES OPEN CIRCUIT THERMOSIPHON



Solahart L Free Heat 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 larger sacrificial anode to help improve the life of the tank.



Enhanced corrosion protection to extend the life of the tank.

L Free Heat systems are installed with a 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.⁽¹⁾

How you benefit:



HOT WATER IN ANY WEATHER

Electric or gas boosting for hot water regardless of the weather



OPTIMAL PERFORMANCE

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



LOW MAINTENANCE

Elegant simplicity provides efficiency, reliability and low maintenance.



REDUCED ENERGY USE

Water heating energy use may be reduced by up to 65% and could save up to 0.8 to 2.3 tonnes of CO₂ emissions per annum when replacing an electric water heater.⁽²⁾



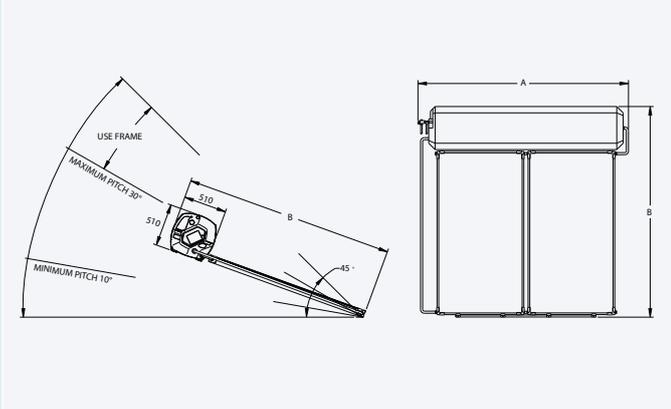
SOLAHART WARRANTY

10-year Cylinder and Collector supply warranty.⁽³⁾

L FREE HEAT DIRECT SYSTEMS

Free Heat Systems		181L	302L	303L
Tank model	Free Heat	180LF	300LF	300LF
Collector	Model	L	L	L
	Number	1	2	3
Capacity				
Storage capacity	litres / US gal	180 / 48	300 / 80	
Boost capacity		90 / 24	150 / 40	
Dimensions and Weight (incl fittings & pipe work)				
Tank Only				
Weight (empty)	kg / lbs	61 / 134	92 / 203	
Weight (full)		241 / 531	392 / 864	
A - Width ⁽⁴⁾	m / in	1.62 / 63.8	2.43 / 95.7	
B - Length ⁽⁴⁾		0.51 / 20.1		
System				
Weight (empty)	kg/ lbs	98 / 216	159 / 351	194 / 428
Weight (full)		280 / 617	462 / 1019	499 / 1100
A - Width ⁽⁴⁾	m / in	1.67 / 65.8	2.48 / 97.6	3.37 / 132.7
B - Length ⁽⁴⁾		2.49 / 98		

L System Dimensions



The L Free Heat systems installed with a TRV system, can be installed as a solar pre-heater with an in-line Solahart gas booster water heater. Refer to the Solahart gas booster specification sheet for further details on the gas booster.

Collector		L Collector	
Dimensions and Weight			
Aperture (heating) area	m ² / ft ²	1.87 / 20	
Length	mm / in	1943 / 76.5	
Width		1027 / 40.5	
Height		83 / 3.3	
Weight empty (collector only)	kg / lbs	30 / 66	
Weight full (incl fittings & pipe work)		36 / 79	
Capacity and Pressure			
Capacity	litres / US gal	1.5 / 0.4	
Working pressure	kPa / psi	1000 / 145	
Materials			
Absorber surface		Black polyester powder coat	
Absorber material		Aluminium	
Riser material		Copper tube	
Tray material		0.7mm Aluminium	
Insulation material (base)		38 mm polyester blanket	
Glass		3.2 mm tempered low iron	

Electric Boost Specifications

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

Water Supply

TPR valve setting	kPa / psi	1000 / 145
Expansion Control Valve (ECV) setting		850 / 125
Max. supply pressure with ECV		680 / 100
Max. supply pressure without ECV		800 / 115
Tank Water connections		Rp 3/4
Plumbing Water connections		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.

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

⁽¹⁾ 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.

⁽²⁾ Energy savings of up to 65% shown is based on Australian Government approved TRNSYS simulation modelling of a Solahart 302L Free Heat and using a medium load in Zone 3 and apply when replacing an electric water heater. Any 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.

⁽³⁾ Solahart Warranty Details: Free Heat 10/5/5 warranty, 10 year cylinder and collector supply, 5 year parts supply, 5 year labour; applies only when installed as a complete new system.

⁽⁴⁾ For servicing and safe access, 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.