



## Thermosiphon KF Series



### Description

The Solahart Kf Series is a roof mounted, closed circuit system specifically designed to provide higher efficiency for use in low to medium solar gain areas.

The higher efficiency absorber with its Black Chrome Selective Surface maximises the absorption of available solar energy while the closed circuit design makes it suitable for frost prone or harsh water areas.

The Kf Series features Solahart's revolutionary multi-flow collector which uses a huge 35 risers to extract the maximum amount of energy from the sun.

The double ceramic lined tank has a protective sacrificial anode and the Kf Free Heat features additional protection.

The tank is equipped with an electric booster, alternatively an in-line gas booster is available.

Most Kf and Kf Free Heat systems can be 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

- Highly efficient Black Chrome Selective Surface collector for optimum heat absorption
- Multi-flow closed circuit operation makes it suitable or frost prone or harsh water areas
- Stylish slimline design
- Thermosiphon operation minimises maintenance
- Gas booster or electric booster models available
- Double coated ceramic lined tank
- Enhanced protection on Free Heat model
- 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 1.9 to 3.2 tonnes of CO<sub>2</sub> emissions per annum\*
- Peace of mind with 10/5/5 (Kf Free Heat), 5/5/5 (Kf Series) year warranties<sup>†</sup>

\* Energy savings of up to 55% to 90% 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](http://solahart.com.au) for further information.

<sup>†</sup> 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 Kf and Kf Free Heat Closed Circuit Systems

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

## Kf and Kf 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 Kf Kf Free Heat		150J -	✓ -	180J 180F	✓ ✓	✓ ✓	220J -	✓ -	✓ -	300J 300F	✓ ✓	✓ ✓	✓ ✓	440J -	✓ -	✓ -
Collector model No of collectors			Kf 1		Kf 1	Kf 2		Kf 1	Kf 2		Kf 1	Kf 2	Kf 3		Kf 3	Kf 4
HartStat OTP	optional	-	✓	-	✓	✓	-	NA	✓	-	NA	✓	✓	-	✓	✓
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	400 106	400 106	400 106
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	200 53	200 53	200 53
Weight	kg lbs	56 123	102 225	66 146	108 238	154 340	78 172	124 273	170 375	99 218	145 320	187 412	229 505	148 326	290 639	320 705
Weight full	kg lbs	206 454	256 564	245 540	292 644	338 745	298 657	348 767	394 869	399 880	449 990	495 1091	541 1193	588 1296	730 1609	776 1711
A – Width*	m in	1.40 55.1	1.40 55.1	1.62 63.8	1.62 63.8	2.42 95.3	1.88 74.0	2.04 80.3	2.42 95.3	2.43 95.7	2.43 95.7	2.43 95.7	3.38 133.1	3.41 134.3	3.49 137.4	4.44 174.8
B – Length*	m in	0.51 20.1	2.63 103.5	0.51 20.1	2.63 103.5	2.63 103.5	0.51 20.1	1.64 64.6	2.63 103.5	0.51 20.1	1.64 64.6	2.63 103.5	2.63 103.5	0.51 20.1	2.63 103.5	22.63 103.5

NA - Not Available

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

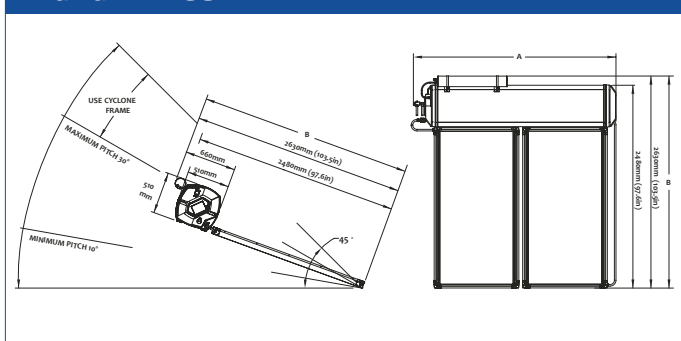
The Kf and Kf Free Heat systems (if installed with a HartStat OTP system) can be installed as a solar preheater with an inline Solahart gas booster water heater. Refer to the Solahart gas booster specification sheet for further details on the gas booster.

## Kf Collector

Aperture (heating) area	m <sup>2</sup>	1.87	ft <sup>2</sup>	20	
Dimensions	length	mm	1937	in	76.3
	Width	mm	1022	in	40.3
	Height	mm	77	in	3.0
Capacity	litres	3.5	US gal	0.9	
Weight*	empty	kg	45	lbs	99
	Full	kg	49	lbs	108
Working pressure	kPa	170	psi	24	
Absorber surface	Chromonyx selective surface				
Absorber material	steel				
Riser material	steel				
Number of risers	35				
Tray material	0.7mm aluminium				
Insulation material (base)	38mm glass wool blanket				
Glass	3.2mm tempered low iron				

\*Weight includes fittings

## Kf and KfFree



## Electric Boost Specifications

Heating unit type*	Copper sheath immersion element			
Supply voltage	220 V - 250 V			
Recovery rate @ 240 V and temperature rise of:				
Rating kW	Current Amps	30°C litres/h	40°C litres/h	50°C litres/h
1.8	8	51	39	31
2.4	10	68	52	41
3.8	15	103	77	62
4.8	20	137	103	83

\*A bobbin element (2.5 kW) is available for hard or corrosive water areas.

## Gas Boost (InTank-Optional) Specifications

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

\*Suitable for hard or corrosive water areas. NA in NSW, QLD

## 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 ¾		
	hot	R ½		

\*Expansion Control Valve  
Technical data is subject to change.