

Thermosiphon

SC/SP SERIES

Roof-mounted, closed-circuit systems with revolutionary Envelope solar collectors



The Solahart SC and SP Series, featuring Australian designed and manufactured Envelope solar collectors, offer the very latest in styling and all-weather durability.

The SC Series provides higher collector performance in low to medium solar gain areas while the SP Series provides efficient performance in medium to high solar gain areas. The collectors, with five patents pending, have been designed to meet or exceed Australian and International Standards in areas of strength, performance and durability.

The double ceramic lined tank has a protective sacrificial anode to improve the life of the tank and Free Heat models feature a larger anode for greater peace of mind.

Features

- **SC SERIES** - High Performance Black Chrome selective surface collector, for use in **low to medium** solar gain areas
- **SP SERIES** - Efficient black polyester powder coated collector, for **medium to high** solar gain areas
- Double coated ceramic lined tank with sacrificial anode
- Silicon adhesive used for glass and frame attachment
- Closed circuit operation
- HartStat Over Temperature Protection (OTP) standard inclusion SC series (in Australia), optional extra SP series
- Thermosiphon technology requires no mechanical pump
- 5 year comprehensive parts and labour warranty plus Free Heat 10 year warranty 300 litre models †
- Electric and gas boosted models available

Benefits

- Can save up to 55% to 90%* of water heating energy consumption
- Can save up to 50% to 85%* of water heating energy consumption
- Enhanced tank protection
- Collector design withstands extreme weather conditions
- Suitable for frost prone or harsh water quality areas
- Protects from over performance on hot days and when there is low water usage
- Reliable, low maintenance operation for years of worry free hot water
- Trusted Solahart warranties
- Hot water regardless of the weather

*Energy savings of up to 50% 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 for more 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; applies only when installed as a complete new system.

 **Solahart**[®]
HOT WATER *Free* FROM THE SUN[®]

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

Thermosiphon SC and SP Closed Circuit Systems

| System Model Collector | SCA2000 | 181S | 222SC | 302SC | 303SC | 443SC |
|---------------------------|--------------------------|--------------|--------------|--------------|---------------|---------------|
| System Model Collector | SPA2000 | 181SP | 222SP | 302SP | 303SP | 443SC |
| Tank Model | SC/SP SC/SP Free Heat | 180J | 220J | 300J 300F | 300J 300F | 440J |
| HartStat OTP [^] | | ✓ | ✓‡ | ✓‡ | ✓‡ | ✓‡ |
| Storage Capacity | litres US gal | 180 48 | 220 58 | 300 80 | | 400 106 |
| Boost Capacity | litres US gal | 90 24 | 110 29 | 150 40 | | 200 53 |
| Weight Empty Tank Only | kg lbs | 66 146 | 78 172 | 99 218 | | 148 326 |
| Weight Full Tank Only | kg lbs | 245 540 | 298 657 | 399 880 | | 588 1296 |
| A – Width* Tank Only | m in | 1.62 63.8 | 1.88 74.0 | 2.43 95.7 | | 3.41 134.3 |
| Weight Empty System | kg lbs | 117 258 | 180 397 | 197 435 | 244 540 | 305 673 |
| Weight Full System | kg lbs | 310 683 | 419 924 | 516 1138 | 567 1250 | 775 1709 |
| A – Width* System | m in | 1.62 63.8 | 2.42 95.3 | 2.43 95.7 | 3.38 133.1 | 3.49 137.4 |

*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. ‡HartStat OTP is mandatory on these models in Australia and New Zealand. 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. ^HartStat OTP is supplied as standard on SC systems in Australia and is available as an option on SP systems.

Collectors - SCA2000 & SPA2000

| Aperture area | m ² | 1.88 | ft ² | 20.2 | |
|----------------------------|--------------------|--|-----------------|------|------|
| Dimensions | length | mm | 1996 | in | 78.6 |
| | width | mm | 1043 | in | 41.1 |
| | height | mm | 82 | in | 3.2 |
| Capacity | litres | 3.8 | US gal | 1.0 | |
| Weight | empty | kg | 47 | lbs | 104 |
| | full | kg | 51 | lbs | 113 |
| Working pressure | no OTP | kPa | 80 | psi | 12 |
| | with OTP | kPa | 170 | psi | 24 |
| Absorber surface | SCA2000 SPA2000 | Chromonyx selective surface Black polyester powder coat | | | |
| Absorber/Riser material | | steel | | | |
| Number of risers | | 35 | | | |
| Frame material | | extruded aluminium | | | |
| Insulation material (base) | SCA2000 | 38mm glass wool blanket | | | |
| | SPA2000 | 38mm polyester blanket | | | |
| Glass | | 3.2mm tempered low iron | | | |

Water Supply

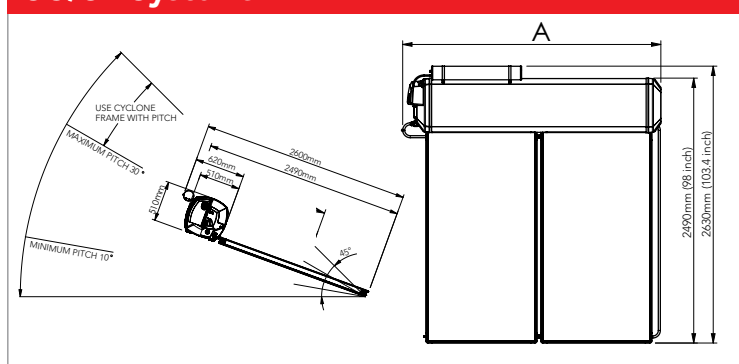
| | | | | | |
|----------------------|-------------|-----------------|-----|-----|-----|
| TPR valve setting | kPa | 1000 | psi | 145 | |
| ECV* setting | kPa | 850 | psi | 125 | |
| Max. supply pressure | with ECV | kPa | 680 | psi | 100 |
| | without ECV | kPa | 800 | psi | 115 |
| Water Connections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

*Expansion Control Valve.

Technical data is subject to change.

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Re-order code: SHB/SHW-SP/SC SOLA0199 - Nov 2014

SC/SP Systems



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/hour | 40°C litres/hour | 50°C litres/hour |
| 1.8 | 8 | 51 | 39 | 31 |
| 2.4 | 10 | 68 | 52 | 41 |
| 2.5* | 10.5 | 71 | 54 | 43 |
| 3.6 | 15 | 103 | 77 | 62 |
| 4.8 | 20 | 137 | 103 | 83 |

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

