

AS System

ENVIROSUN® Active Solar System





Australian Standard

AS2712: 2007
Lic. SMKP20021
SAI Global



WaterMark
AS3498 Lic. WMKA21707
SAI Global

ENVIROSUN — SMARTER SOLAR SOLUTIONS

Everyone knows the benefits of solar hot water – by harnessing the sun’s energy and converting it into hot water, it reduces your household’s greenhouse gas emissions, saves you money on energy bills and adds value to your home.

Envirosun takes these benefits one step further, with a real commitment to the environment, and to you.

The Envirosun story is one that encompasses over a quarter of a century of industry experience and innovation. Supplying solar hot water systems is all we do, and we do it well. Our manufacturing philosophy is different. We’re assemblers, not fabricators shackled by a commitment to an outdated manufacturing plant.

What we do is scour the world for the very best solar water heating components – tanks, collectors and controls - from some of the world’s largest and most advanced production houses, allowing us to keep one step ahead as technology progresses. Through our process of choosing the best components that work and fit together in the best way, we are always at the cutting edge of the industry, providing superior, environmentally responsible solar hot water systems.

What this means for you is a product that is more reliable and more durable; one that works better and is more economical to run.



AS

ACTIVE SOLAR SYSTEMS

Benefits of the AS system

1. High performance active solar hot water system
2. Roof-installed solar collectors and ground-mounted tank
3. Tank can be located indoors or out
4. Greater flexibility, improved aesthetics and higher capacity
5. Latest collector technology
6. Maximum solar absorption and storage in all areas

Envirosun's Active Solar (AS) range of pumped or active solar hot water systems offer greater flexibility, improved aesthetics and higher capacity, along with maximum efficiency and reduced energy costs.

Only the solar collectors are installed on the roof, harnessing energy from the sun and transferring it to a ground-mounted storage tank. The tank can be sited indoors or out, in any convenient or out-of-the-way location.

The operating principle is simple - when the solar collectors are able to add heat into the storage tank, a small pump is switched on to circulate hot water from the collectors and replace it with cool water from the tank. Once the tank is full of hot water, the pump is switched off, but ready for the next cycle.

While pumped systems have been around for many years, modern electronics and materials have brought improvements in both function and reliability. Today's EnviroSun AS systems adopt many of these technological advances and blend them with our collector technology to create a range of high-performance active solar hot water systems that maximise solar absorption and storage, whether you live in a low or high radiation area.



THE CONTROLLER

The AS System circulating pump is controlled by an electronic microprocessor that is located on the side of the storage tank and adjacent to the pump. The controller uses two temperature sensors to compare the temperature of the solar collectors to that of the storage tank.

When the collectors are 10°C hotter than the tank, the controller starts the pump and water begins to circulate between the tank and collectors. Circulation continues until the temperature difference between the tank and collectors falls to 1°C and the pump is then stopped.

The circulating pump draws negligible electrical energy and the controller ensures it operates when solar gain is available.

The controller also fulfils a number of other functions: it protects the storage tank from over-heating, it cools the collectors if they approach excessively high temperatures; and it reduces the risk of the collectors freezing under winter frost conditions*.

* Not recommended for severe frost-prone areas.



COMPLIANCE AND STC CREDITS

Envirosun is fully compliant to all relevant industry standards, and independently accredited by the Australian Government Clean Energy Regulator (CER). Envirosun solar hot water systems appear on the CER Register and create Renewable Energy Certificates, which form the basis for determining Small-scale Technology Certificates (STCs). These credits are available as financial support to purchasers – the greater the number of STCs, the greater the level of support.

WHAT ARE SMALL-SCALE TECHNOLOGY CERTIFICATES?

The Australian Government Clean Energy Regulator publishes a Register of solar water heaters for which Small-scale Technology Certificates (STCs) may be created under the provisions of the Renewable Energy (Electricity) Act 2000.

The number of STCs a particular water heater is entitled to create will depend on its installation date and geographic location. The Regulator has determined four zones for solar water heaters with each zone based on climate and solar radiation levels. Each zone has been defined on geographic location.

The number of STCs depends on the installation date and geographic location of the solar hot water heater. The map here shows the geographic location for each zone. The CER also provides the list of postcodes that lie in each zone.



ENVIROSUN EXTENDED PRODUCT WARRANTY

| Component | Up to 1 Year from Date of Installation | From 1 to 2 Years from Date of Installation | From 2 to 5 Years from Date of Installation | From 5 to 7 Years from Date of Installation |
|---|--|---|---|---|
| | Parts & Labour | Parts & Labour | Parts | 25% Discount Off RRP on Parts |
| AS Tank (ground mounted) | ✓ | ✓ | ✓ | ✓ |
| Collector | ✓ | ✓ | ✓ | ✓ |
| PM-602 | ✓ | ✓ | | |
| Electrical Parts, Valves & Plumbing Accessories | ✓ | | | |



STANDARDSMARK LICENCE

SAI Global hereby grants:

Energie Group Australia Pty Ltd

ABN 50 166 500 787

460 Victoria Road, Malaga, WA 6090, Australia

StandardsMark Licence

Manufactured to:

AS/NZS 3715:2007 - Solar and heat pump water heaters - Design and construction

The StandardsMark Licencee has the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licencee or on behalf of the Licencee and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. The Licencee agrees to comply with all the Rules and Terms and Conditions.

Certificate No: SMXFP0001

Issued: 16 November 2017

Originally Certified: 4 July 2003

Expires: 3 July 2018

Current Certification: 16 November 2017

Nicole Draxton
General Manager, SAI Global Certification Services



*For details of membership, refer to the license

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 109 866 843) (SAI) to whom all rights relating to the STANDARDSMARK belong. SAI is a member of SAI Global Pty Limited (A.C.N. 109 866 843) (SAI Global) and SAI Global Pty Limited (A.C.N. 109 866 843) (SAI Global) is a member of SAI Global Pty Limited (A.C.N. 109 866 843) (SAI Global). This certificate is issued in accordance with the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. Refer to www.saiglobal.com for the full terms and conditions.



CERTIFICATE OF CONFORMITY

SAI Global hereby grants:

Energie Group Australia Pty Ltd

ABN 50 166 500 787

460 Victoria Road, Malaga, WA 6090, Australia

WaterMark Certificate of Conformity - Level 1

Evaluated to:

AS 3498:2009 - Authorization requirements for plumbing products - Water heaters and hot-water storage tanks

The WaterMark Licencee has the right to use or arrange the use of the WATERMARK as shown below only in respect of the goods described and detailed in the product schedule identified at www.saiglobal.com which are produced by the WaterMark Licencee or on behalf of the WaterMark Licencee and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the WATERMARK and the Terms and Conditions for certification. The WaterMark Licencee agrees to comply with all the Rules and Terms and Conditions.

Certificate No: SMWA211E7

Issued: 8 December 2016

Originally Certified: 8 July 2012

Expires: 7 July 2020

Current Certification: 8 December 2018

Nicole Draxton
General Manager, SAI Global Certification Services



*For details of membership, refer to the license

The WATERMARK is a registered certification trademark of Australian Building Codes Board (ABCC) (A.C.N. 109 866 843) (ABCC) to whom all rights relating to the WATERMARK belong. ABCC is a member of SAI Global Pty Limited (A.C.N. 109 866 843) (SAI Global) and SAI Global Pty Limited (A.C.N. 109 866 843) (SAI Global) is a member of SAI Global Pty Limited (A.C.N. 109 866 843) (SAI Global). This certificate is issued in accordance with the rules governing the use of the WATERMARK and the Terms and Conditions for certification and licence. Refer to www.saiglobal.com for the full terms and conditions.



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For sales or product information: 1300 314 173

Head Office: Envirosun, 460 Victoria Road, Malaga WA 6090

AS

| ELECTRIC BOOSTED OPEN SYSTEMS | AS250/25e | AS250/40e | AS315/40e | AS315/50e | AS315/60e | AS400/40e | AS400/50e | AS400/60e |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| CER Code | AS250/25/O/E24/E25BC-DM | AS250/40/O/E24/E20BC-DM | AS315/40/O/E24/E20BC-DM | AS315/50/O/E24/E25BC-DM | AS315/60/O/E24/E20BC-DM | AS400/40/O/E24/E20BC-DM | AS400/50/O/E24/E25BC-DM | AS400/60/O/E24/E20BC-DM |
| Tank | VE250/E24/V-DM | VE250/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM |
| Collectors | E25BC | E20BC | E20BC | E25BC | E20BC | E20BC | E25BC | E20BC |
| Storage capacity | 259L | 259L | 321L | 321L | 321L | 420L | 420L | 420L |
| Mass empty | 123kg | 155kg | 176kg | 185kg | 208kg | 143kg | 158kg | 229kg |
| Mass full (on roof) | 46kg | 75kg | 75kg | 90kg | 112kg | 75kg | 90kg | 112kg |
| Mass full (on ground) | 340kg | 340kg | 422kg | 422kg | 422kg | 544kg | 544kg | 544kg |
| Footprint (on roof) | 1,413 x 2,050mm | 2,270 x 2,050mm | 2,270 x 2,050mm | 2,740 x 2,050mm | 3,362 x 2,050mm | 2,270 x 2,050mm | 2,740 x 2,050mm | 3,362 x 2,050mm |
| Footprint (on ground) | 782 x 617mm | 782 x 617mm | 782 x 617mm | 782 x 617mm | 782 x 617mm | 870 x 705mm | 870 x 705mm | 870 x 705mm |
| Boost capacity | 167L | 167L | 187L | 187L | 187L | 253L | 253L | 253L |
| TANK | | | | | | | | |
| Model | VE250/E24/V-DM | VE250/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM |
| Mass empty | 72kg | 72kg | 93kg | 93kg | 93kg | 115kg | 115kg | 115kg |
| Mass full | 331kg | 331kg | 414kg | 414kg | 414kg | 535kg | 535kg | 535kg |
| Footprint | 620 x 620mm | 620 x 620mm | 620 x 620mm | 620 x 620mm | 620 x 620mm | 705 x 705mm | 705 x 705mm | 705 x 705mm |
| Height | 1,445mm | 1,445mm | 1,765mm | 1,765mm | 1,765mm | 1,705mm | 1,705mm | 1,705mm |
| COLLECTORS | | | | | | | | |
| Quantity | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 |
| Model | E25BC | E20BC | E20BC | E25BC | E20BC | E20BC | E25BC | E20BC |
| Mass empty (each) | 41.0kg | 34kg | 34kg | 41.0kg | 34kg | 34kg | 41.0kg | 34kg |
| Mass full (each) | 43.0kg | 35.7kg | 35.7kg | 43.0kg | 35.7kg | 35.7kg | 43.0kg | 35.7kg |
| Footprint (each) | 1,235 x 2,000mm | 1,000 x 2,000mm | 1,000 x 2,000mm | 1,235 x 2,000mm | 1,000 x 2,000mm | 1,000 x 2,000mm | 1,235 x 2,000mm | 1,000 x 2,000mm |
| Height (each) | 82mm | 82mm | 82mm | 82mm | 82mm | 82mm | 82mm | 82mm |
| ELECTRIC BOOSTER | | | | | | | | |
| Rating | 2.4kW | 2.4kW | 2.4kW | 2.4kW | 2.4kW | 2.4kW | 2.4kW | 2.4kW |
| SMALL-SCALE TECHNOLOGY CREDITS (STCs) | | | | | | | | |
| Zone 1 | 17 | 30 | 30 | 40 | 41 | 29 | 40 | 41 |
| Zone 2 | 18 | 31 | 32 | 43 | 44 | 31 | 42 | 44 |
| Zone 3 | 17 | 30 | 30 | 40 | 42 | 29 | 39 | 41 |
| Zone 4 | 15 | 27 | 27 | 35 | 37 | 25 | 34 | 36 |
| GAS BOOSTED OPEN SYSTEMS | | | | | | | | |
| CER Code | AS250/25/O/GD20/E25BC-DM | AS250/40/O/GD20/E20BC-DM | AS315/40/O/GR26/E20BC-DM | AS315/50/O/GR26/E25BC-DM | AS315/60/O/GR26/E20BC-DM | AS400/40/O/GR26/E20BC-DM | AS400/50/O/GR26/E25BC-DM | AS400/60/O/GR26/E20BC-DM |
| Tank | VE250/E24/V-DM | VE250/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM |
| Collectors | E25BC | E20BC | E20BC | E25BC | E20BC | E20BC | E25BC | E20BC |
| Storage capacity | 258L | 258L | 320L | 320L | 320L | 420L | 420L | 420L |
| Mass empty | 144kg | 171kg | 193kg | 206kg | 228kg | 165kg | 179kg | 250kg |
| Mass full (on roof, exc Booster) | 46kg | 75kg | 75kg | 90kg | 112kg | 75kg | 90kg | 112kg |
| Mass full (on ground, exc Booster) | 340kg | 340kg | 422kg | 422kg | 422kg | 544kg | 544kg | 544kg |
| Footprint (on roof) | 1,413 x 2,050mm | 2,270 x 2,050mm | 2,270 x 2,050mm | 2,740 x 2,050mm | 3,362 x 2,050mm | 2,270 x 2,050mm | 2,740 x 2,050mm | 3,362 x 2,050mm |
| Footprint (on ground) | 782 x 617mm | 782 x 617mm | 782 x 617mm | 782 x 617mm | 782 x 617mm | 870 x 705mm | 870 x 705mm | 870 x 705mm |
| Boost rate | 20L/min | 20L/min | 26L/min | 26L/min | 26L/min | 26L/min | 26L/min | 26L/min |
| TANK | | | | | | | | |
| Model | VE250/E24/V-DM | VE250/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE315/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM | VE400/E24/V-DM |
| Mass empty | 72kg | 72kg | 93kg | 93kg | 93kg | 115kg | 115kg | 115kg |
| Mass full | 330kg | 330kg | 413kg | 413kg | 413kg | 535kg | 535kg | 535kg |
| Footprint | 620 x 620mm | 620 x 620mm | 620 x 620mm | 620 x 620mm | 620 x 620mm | 705 x 705mm | 705 x 705mm | 705 x 705mm |
| Height | 1,445mm | 1,445mm | 1,765mm | 1,765mm | 1,765mm | 1,705mm | 1,705mm | 1,705mm |
| COLLECTORS | | | | | | | | |
| Quantity | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 3 |
| Model | E25BC | E20BC | E20BC | E25BC | E20BC | E20BC | E25BC | E20BC |
| Mass empty (each) | 41.0kg | 34kg | 34kg | 41.0kg | 34kg | 34kg | 41.0kg | 34kg |
| Mass full (each) | 43.0kg | 35.7kg | 35.7kg | 43.0kg | 35.7kg | 35.7kg | 43.0kg | 35.7kg |
| Footprint (each) | 1,235 x 2,000mm | 1,000 x 2,000mm | 1,000 x 2,000mm | 1,235 x 2,000mm | 1,000 x 2,000mm | 1,000 x 2,000mm | 1,235 x 2,000mm | 1,000 x 2,000mm |
| Height (each) | 82mm | 82mm | 82mm | 82mm | 82mm | 82mm | 82mm | 82mm |
| GAS BOOSTER | | | | | | | | |
| Rating | 32kW | 32kW | 40kW | 40kW | 40kW | 40kW | 40kW | 40kW |
| SMALL-SCALE TECHNOLOGY CREDITS (STCs) | | | | | | | | |
| Zone 1 | 23 | 33 | 28 | 38 | 40 | 27 | 38 | 40 |
| Zone 2 | 26 | 38 | 30 | 42 | 43 | 30 | 41 | 43 |
| Zone 3 | 23 | 34 | 28 | 38 | 41 | 28 | 38 | 41 |
| Zone 4 | 20 | 29 | 25 | 33 | 36 | 25 | 33 | 36 |

* STCs are subject to change. Consult www.cleanenergyregulator.gov.au for updates.