

AS System

ENVIROSUN® Active Solar System





Australian Standard

AS2712: 2007
Lic. SMKP20021
SAI Global



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 We’re assemblers, not fabricators shackled by a commitment to an outdated manufacturing plant.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

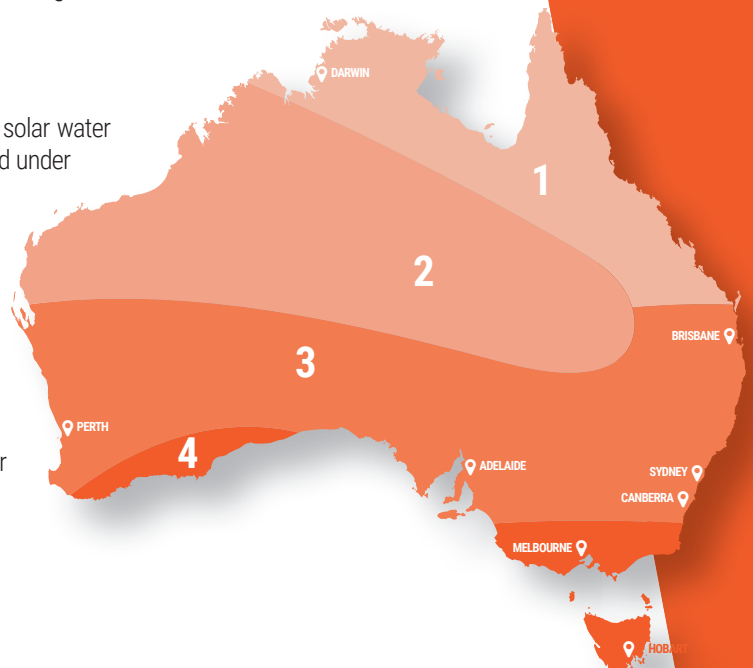
Envirosun is fully compliant to all relevant industry standards, and independently accredited by the Australian Government Clean Energy Regulator (CER). Envirosun solar hot water systems appear on the CER Register and create Renewable Energy Certificates, which form the basis for determining Small-scale 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.



MAGONTEC – ENVIROSUN EXTENDED PRODUCT WARRANTY

Envirosun supports its customers investment with an industry standard 5 year limited warranty, however to ensure the best return on your new investment, Envirosun has an optional extended warranty with our new Magontec Warranty System when installed on the same day as your Envirosun solar water heater.

The Magontec Warranty can offer up to 10 year warranty extension on some models, but read our separate Technical Data Bulletin for the Envirosun Magontec warranty extension including Terms & Conditions.





STANDARDSMARK LICENCE

SAI Global hereby grants:

Energie Group Australia Pty Ltd

ABN 50 166 500 787

480 Victoria Road, Malaga, WA 6090, Australia

StandardsMark Licence

Manufactured to:

AS/NZS 2712:2007 - Solar and heat pump water heaters - Design and construction

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Certificate No:SMKP20021

Issued: 16 November 2017

Originally Certified: 4 July 2003

Expires: 3 July 2018

Current Certification: 16 November 2017

Nicole Grantham
General Manager SAI Global Certification Services



* For details of manufacture, refer to the licensee

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CERTIFICATE OF CONFORMITY

SAI Global hereby grants:

Energie Group Australia Pty Ltd

ABN 50 166 500 787

480 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

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Certificate No:WVMA21707

Issued: 8 December 2016

Originally Certified: 8 July 2010

Expires: 7 July 2020

Current Certification: 8 December 2016

Nicole Grantham
General Manager SAI Global Certification Services



* For details of manufacture, refer to the licensee

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460 Victoria Road MALAGA WA 6090

A division of Energie Group Australia Pty. Ltd. ABN 50 166 500 787

Phone
(08) 9203 2000

Sales
1300 314 173

Service
1300 825 143

Email
info@envirosun.solar

Online
www.envirosun.solar

AS FACT SHEET

FOR FURTHER INFORMATION IN AUSTRALIA TELEPHONE:

For service, installation or warranty: 1300 825 143

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	26	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	24L/min	24L/min	24L/min	24L/min	24L/min	24L/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	37	30	42	43	30	41	43
Zone 3	23	33	28	38	41	28	38	41
Zone 4	20	28	25	33	36	25	33	36

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