STIEBEL ELTRON

The heat is there – let's use it!

› Using free environmental energy from the air and ground with heat pump technology for hydronic heating

09 | 2018

STIEBEL ELTRON is full of energy

We take ideas and turn them into innovations that move markets. As a company driven by engineering expertise, we aim to deliver results and turn our excellent products into groundbreaking system solutions – because we want to be actively engaged in shaping the future.

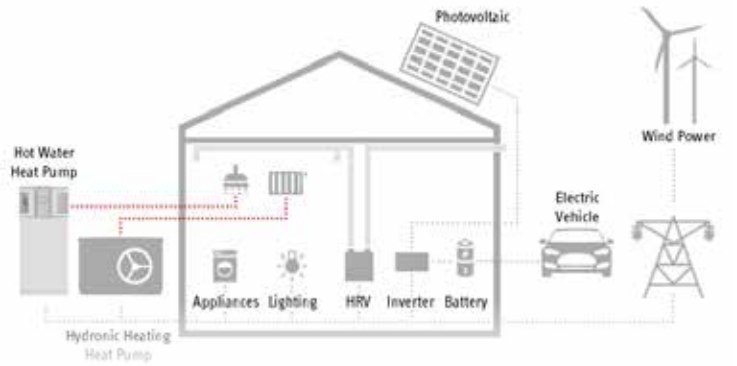
Our products have long been distinguished by excellent reliability, high quality and a long service life.

We have been developing highly efficient electrical appliances since 1924, and in our business, we rely on the expertise of our 3,100 employees, in all areas from product development through to manufacturing. The result is a portfolio of over 2,000 products in the fields of hot water, renewables, ventilation, air conditioning and room heating. Thanks to smart combinations, we are able to offer more than 30,000 system solutions that can help you prepare your home for the future.

Since 2015 at our head office in Holzminden, Germany, we have been running the Energy Campus – a flagship project for sustainable construction that makes careful use of resources. This training and communication centre brings together high quality architecture and communication technology, and as a Plus Energy building, generates more energy than it consumes. This is in keeping with our brand promise “Full of energy” and creates a space where the spirit of STIEBEL ELTRON can be experienced both in theory and practice.

Electricity – the energy source of the future

Renewable energies will become the norm for the future of energy supply as more and more people recognise the benefits of green and self-generated power from renewable sources.



The goal of the energy transition is independence from fossil fuels

Fossil fuels are in decline on the electricity market – too harmful to the climate and becoming ever more scarce. Nowadays, alternative energies using the sun, wind and water are being used to generate green power.

So it is only logical to act in good time to convert the largest energy consumer in your home – the heating system – to these future-proof forms of energy. As nearly 60 % of energy consumed in Australian homes is used for heating and cooling as well as domestic hot water, this makes perfect sense. So there is plenty of scope for implementing the energy transition in your own home.

AIR SOURCE

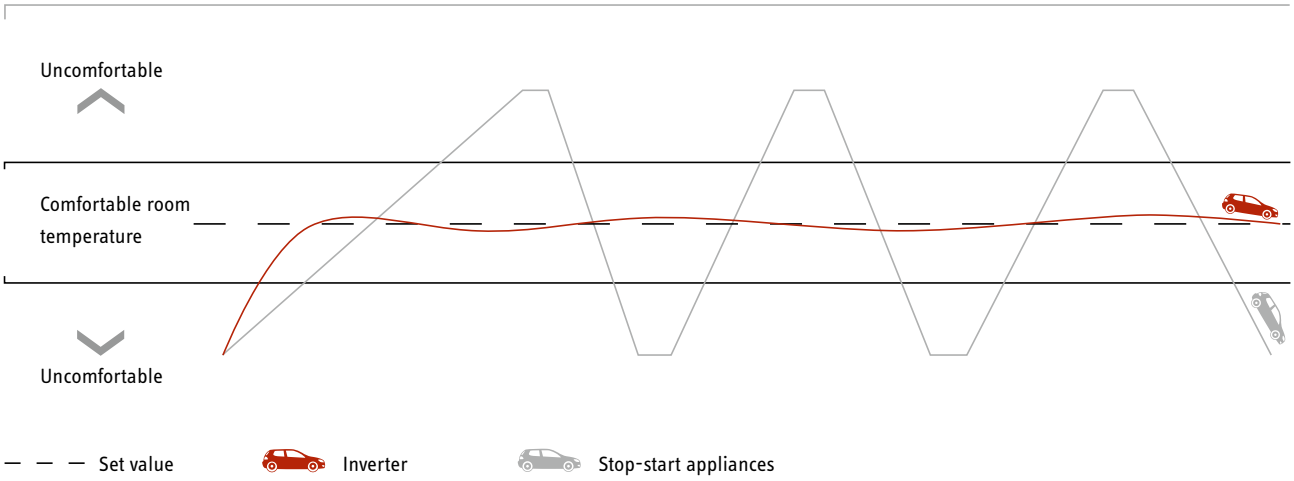
The air is full of energy

Outdoor air is supplied to the air source heat pump – installed either indoors or outdoors – via flexible hoses and a quiet fan. A heat exchanger extracts the latent energy from the air which is converted by the heat pump into useful heat for your home. Even at icy temperatures as low as –20 °C, the air source heat pump still operates efficiently and economically, all the while impressing with its outstanding COP. Very high flow temperatures can also still be achieved without backup from a booster heater.

- Continuous output matching
- Higher efficiency in the partial load range
- Very quiet
- Top technology – Made by STIEBEL ELTRON
- Wide application range down to –20 °C
- Improved efficiency and heating output

Metered output – full efficiency
If cars only had two operating modes, i.e. full power or full braking, that would be neither comfortable nor efficient. Conventional heat pumps still operate just like that, as they are either on or off. This is where STIEBEL ELTRON air source heat pumps with inverter technology come into their own. They always deliver precisely the output that is currently required. Not only is this more energy efficient, it also reduces noise emmissions during spring and autumn. This is because the fan and compressor operate, on average, with a lower output and are consequently even more quiet than usual.

Comparison of inverter technology

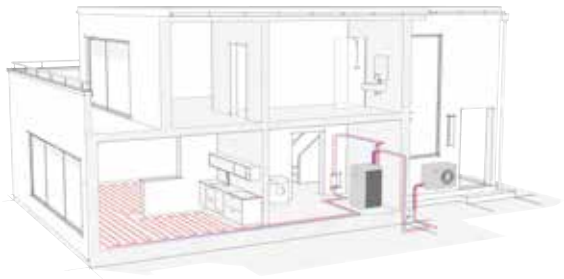


WPL 17 ACS classic

COMFORTABLE HEAT FOR HIGH-PERFORMING HOMES

The WPL ACS classic sets benchmarks in the entry level segment for newly built houses. Thanks to its low operating noise, it can even be used where space is a premium. Advanced inverter technology ensures high efficiency and greater cost savings.

WPL classic installer packages – perfectly matched
The WPL classic installer packages offer a complete system solution including the hydraulic module HMS Trend and a STIEBEL ELTRON buffer cylinder. All the necessary parts of the system technology are already integrated. This enables space to be saved as well as a fast and neat installation.



Benefits for your home

- Heat pump installed outdoors for heating
- Minimum operating noise that can be further reduced with the silent mode function
- High efficiency thanks to advanced inverter technology
- Small footprint
- Ideally suited to high-performing houses with a small heating load

Model		WPL 17 ACS classic
		235922
Energy efficiency class		A+/A++
Rated voltage	V	230 (single phase)
Output at A7/W35 (EN 14511)	kW	8.5
Coefficient of performance at A7/W35 (EN 14511)		4.86
Sound power level (EN 12102)	dB(A)	57
Sound pressure level at 5 m distance in a free field	dB(A)	35
Max. application limit on the heating side	°C	60
Height	mm	812
Width	mm	1152
Depth	mm	524
Weight	kg	91

Installation requirements as per AS/NZS3000.

WPL 17 ACS classic


STIEBEL ELTRON

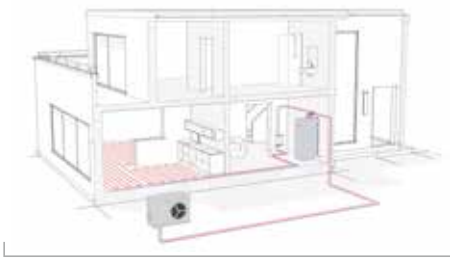
WPL 25 AC(S)

COSY WARMTH FROM THE AIR IN AUSTRALIAN HOMES

The WPL 25 AC and WPL 25 ACS air source hydronic heat pumps offer an affordable entry into the energy transition for your home. Specifically engineered for outdoor installation, STIEBEL ELTRON focused on keeping the operating sound of these heat pumps to a minimum and offer the quietest system in the market.

The classic heating system for your quality home

The WPL 25 AC(S) is powered by STIEBEL's energy efficient inverter technology which offers an exceptional COP of 5 and a heating output of 14 kW (A7/W35). This makes it the perfect fit for the standard Australian family home.



Benefits for your home

- Outdoor installation to harvest energy from the air and turn it into comfortable heat for your home
- Ideally suited for under floor heating in new builds – heating output matches the standard Australian home
- Suitable for use with radiators – up to 65 °C flow temperatures
- Increased efficiency through enhanced saturated vapour injection
- Energy efficient inverter technology for high flow temperatures even on cold winter days
- Very quiet operation for use in dense neighbourhoods
- ISG unit allows for comprehensive after sales support
- Smart Grid ready for connection to solar PV and energy management systems
- Natural defrost function ensures efficient operation in cold areas

Model		WPL 25 AC	WPL 25 ACS
		236645	236643
Energy efficiency class		A++	A++
Rated voltage	V	400 (3 phase)	230 (single phase)
Output at A7/W35 (EN14511)	kW	14	14
Coefficient of performance at A7/W35 (EN14511)		5.09	4.82
Sound power level (EN 12102)	dB(A)	54	54
Sound pressure level at 5 m distance in a free field	dB(A)	32	32
Max. application limit on the heating side	°C	65	65
Height/Width/Depth	mm	1045/1490/593	1045/1490/593
Weight	kg	175	175

Installation requirements as per AS/NZS3000.

German Design Award NOMINEE 2015

WPL 25 AC(S)

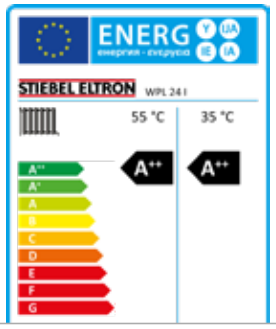
WPL 24 I

IDEAL HEAT PUMP SOLUTION FOR INDOOR INSTALLATION

The WPL 24 I air source heat pump has been designed specifically for installation inside your home. STIEBEL ELTRON is focused on ensuring premium comfort at home, that is why we invent and implement innovative technology such as a modulating fan control in the WPL 24 I which keeps operating sound extremely quiet.

Overall efficiency boost

The WPL 24 I has been awarded with the highest efficiency class by the European commission for energy ratings: A++. This is possible thanks to a technology which captures and re-uses wasted heat from the inverter. STIEBEL ELTRON engineers included this technology to increase the overall efficiency of the system.



Benefits for your home

- Air source heat pump for indoor installation
- Increased efficiency through enhanced saturated vapour injection
- With energy efficient inverter technology
- Very quiet operation to ensure STIEBEL ELTRON premium quality and home comfort
- ISG unit allows for comprehensive after sales support
- Smart Grid ready to connect to solar PV as well as home energy management systems
- High flow temperature for use with radiators

WPL 24 I

Model		WPL 24 I
		235194
Energy efficiency class		A++
Rated voltage	V	400 (3 phase)
Output at A7/W35 (EN14511)	kW	15.7
Coefficient of performance at A7/W35 (EN14511)		4.72
Sound power level (EN 12102)	dB(A)	49
Max. application limit on the heating side	°C	65
Height/Width/Depth (standard appliance)	mm	1116/784/1182
Height/Width/Depth (indoor installation)	mm	1182/800/1240
Weight (appliance)	kg	201
Weight (indoor installation)	kg	289

Installation requirements as per AS/NZS3000.

WPL 57

PERSUASIVE OUTPUT IN COMMERCIAL BUILDS

The robust WPL 57 has adequate energy reserves to cope with higher heating demands, such as those common in apartment blocks or commercial buildings. Even at temperatures as low as −20 °C, the hydronic heating heat pump can reach flow temperatures of 60 °C which makes it an optimum choice when modernising older buildings.

And there is more

In addition to the almost limitless application options, this model can also be used in cascades for larger buildings or commercial units, where the output can be multiplied easily by combining several WPL 57 heat pumps together.

Benefits for commercial builds and apartment blocks

- Heat pump installed outdoors
- Ideally suited to modernisation of commercial builds
- High output and excellent COP even at low outside temperatures
- Cost savings through efficient heat pump defrosting
- Combine multiple heat pumps for output up to 186 kW

WPL 57

Model		WPL 57
		228837
Energy efficiency class		A+/A+
Rated voltage	V	400 (3 phase)
Output at A7/W35 (EN 14511)	kW	31
Coefficient of performance at A7/W35 (EN 14511)		3.59
Sound power level (EN 12102)	dB(A)	69
Sound pressure level at 5 m distance in a free field	dB(A)	47
Max. application limit on the heating side	°C	60
Height/Width/Depth	mm	1485/1860/2040
Weight	kg	600

Installation requirements as per AS/NZS3000.

GEOTHERMAL

Maximising the heat potential of your property

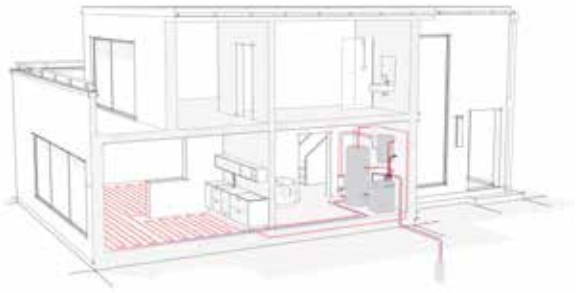
Even when it is freezing outside, temperature levels remain steady deep below the ground. Our advanced geothermal heat pumps utilise this phenomenon and are among the few that achieve a COP of up to 5. With consistent temperatures under ground, geothermal heat pumps generate from one part electricity up to five parts heat.

WPF (S)

TOP EFFICIENCY AND ALL IMPORTANT COMPONENTS INCLUDED

Save money while saving energy – the affordable WPF (S) basic series provides an ideal alternative to highly integrated geothermal heat pumps. Featuring top STIEBEL ELTRON quality, the WPF (S) basic is designed for easy installation. Thanks to its compact and timeless design, it fits nicely into your home without wasting valuable space.

Flexible solutions to suit your home
With many different options for combining cylinders and accessories from the STIEBEL ELTRON range, the WPF (S) basic can be matched to many different heating outputs.



Benefits for your home

- Geothermal hydronic heat pump installed indoors for underfloor and radiator heating
- Compact design for easy placement in your home
- Optimal energy use through efficient circulation pump
- Timeless design
- Highest European energy efficiency rating A++ for low energy bills
- Extremely quiet operation thanks to advanced sound technology
- Ideal to use in retrofits: up to 65 °C flow temperature

Model		WPF 13 S	WPF 13	WPF 16
		232925	232919	232914
Energy efficiency class		A++/A++	A++/A++	A++/A++
Output at B0/W35 (EN 14511)	kW	13.01	10.31	17.02
Coefficient of performance at B0/W35 (EN 14511)		4.75	4.82	4.54
Sound power level (EN 12102)	dB(A)	50	50	53
Sound pressure level at a distance of 5 m	dB(A)	28	28	31
Max. application limit on the heating side	°C	60	65	65
Height	mm	1319	1319	1319
Width	mm	598	598	598
Depth	mm	658	658	658
Weight	kg	171	171	181

WPF (S)

WPF (HT)

STACKABLE POWER PACKS

In cascading operation, these compact geothermal heat pumps achieve an output of up to 400 kW. To save space in the process, individual heat pumps can be stacked on top of each other. This efficient heating solution was specifically developed for larger residential complexes, as well as commercial and industrial buildings.

A good combination – the perfect solution for high temperature heating
In combination with the WPF 20-66 in cascade control, the WPF 27 HT heat pump can be used very effectively for high flow temperatures up to 75 °C. An integrated heat meter can calculate the amount of heating energy consumed at any time.

Benefits for your home

- Geothermal hydronic heat pump installed indoors or outdoors for heating
- Specially developed for larger residential complexes, as well as commercial and industrial buildings
- Potential for remote PC monitoring
- Space savings as a result of stackable design
- Very quiet operation
- Flow temperatures up to 75 °C

		PLUS						
Model		**WPF 20**	**WPF 27**	**WPF 27 HT**	**WPF 35**	**WPF 40**	**WPF 52**	**WPF 66**
		233003	**233004**	**233009**	**233005**	**233006**	**233007**	**233008**
Energy efficiency class		A++/A++	A++/A++	A++/A++	A++/A++	A++/A++	A++/A++	A++/A++
Output at B0/W35 (EN 14511)	kW	21.5	29.69	27.41	38.04	43.1	55.83	67.10
Coefficient of performance at B0/W35 (EN 14511)		4.66	4.85	4.34	4.78	4.67	4.81	4.56
Sound power level (EN 12102)	dB(A)	54	55	55	56	58	58	61
Sound pressure level at a distance of 1 m	dB(A)	43	44	44	45	47	47	50
Max. application limit on the heating side	°C	60	60	75	60	60	60	60
Height	mm	1154	1154	1154	1154	1154	1154	1154
Width	mm	1242	1242	1242	1242	1242	1242	1242
Depth	mm	860	860	860	860	860	860	860
Weight	kg	345	367	409	391	415	539	655

Accessories

DISCOVERING POSSIBILITIES

Our extensive range of accessories allows all our appliances to be adjusted to your personal requirements – for tailor-made convenience. These adaptations can range from the control unit of a single appliance to a complex system – STIEBEL ELTRON offers the whole range from a single source. For that reason, all components are perfectly matched to each other and guarantee a long service life for lasting solutions. For further information on our extensive range of accessories for your STIEBEL ELTRON products see www.stiebel.com.au/accessories or speak to your local trade partner.

Heat pump manager

Makes best use of your heat pump's potential
The WPM is the control centre of any STIEBEL ELTRON heat pump system, enabling the entire system to be monitored and controlled.

Room based remote control

Everything controlled from the living room
The FET remote control displays all the information you need to set the right temperature in your living room, such as the outside temperature, relative humidity and the desired room temperature. In combination with the WPM, you can control multiple zones.

Internet-service gateway

Virtual commissioning thanks to online data transfer
The ISG web allows for an automated transfer of heat pump performance data to the STIEBEL ELTRON Internet Service Portal and remote service support. In addition, home owners have the option to view and control the settings of the hydronic heat pump system online using the STIEBEL ELTRON web app.

Insulated pump assembly

All-in-one kit facilitates installation
The WPKI-HK E suits a heat pump installation with one heating circuit. It includes a circulation pump, shut-off valves with thermometer and gravity brake as well as an opening mechanism.

HMS TREND

SIMPLIFIED INSTALLATION OF AIR SOURCE HEAT PUMPS

The HMS Trend simplifies the integration of an air source heat pump into the system hydraulics and allows simple and clean installation in a single step.

All-in-one solution

All relevant heating components, such as the highly efficient circulation pump for the heating, a multi stage electric emergency/booster heater, 24 litre heating expansion vessel, safety valve and a quick action air vent valve are already integrated. The system is controlled via the integral WPM 3 heat pump manager with illuminated symbol and plain text display, which enables fully automated, weather-compensated control of the heating system. An optional ASL-HM insulated connector block can be used, which simplifies hydraulic connection.

Benefits for your home

- Heat pump and cylinder module can be connected to a water-bearing pipe
- For simplified installation of air source heat pumps
- Compact design for a small footprint
- Includes 24 L heating expansion vessel
- WPM 3 heat pump manager included

Model		HMS Trend
		233826
Height	mm	896
Height incl. connector block	mm	1131
Width	mm	590
Depth	mm	405
Weight	kg	27
External available pressure differential at 1.0 m^3/h	hPa	715
External available pressure differential at 1.5 m^3/h	hPa	661
External available pressure differential at 2.0 m^3/h	hPa	468
External available pressure differential at 2.5 m^3/h	hPa	300
Rated control voltage	V	230
Rated voltage, emergency/booster heater	V	230
Power consumption, emergency/booster heater	kW	5.9
Connection		G1
Connector block		Optional

FOR US, QUALITY IS THE NORM

ISO 9001

We plan our business processes in accordance with the requirements of the quality-management standard.

ISO 14001

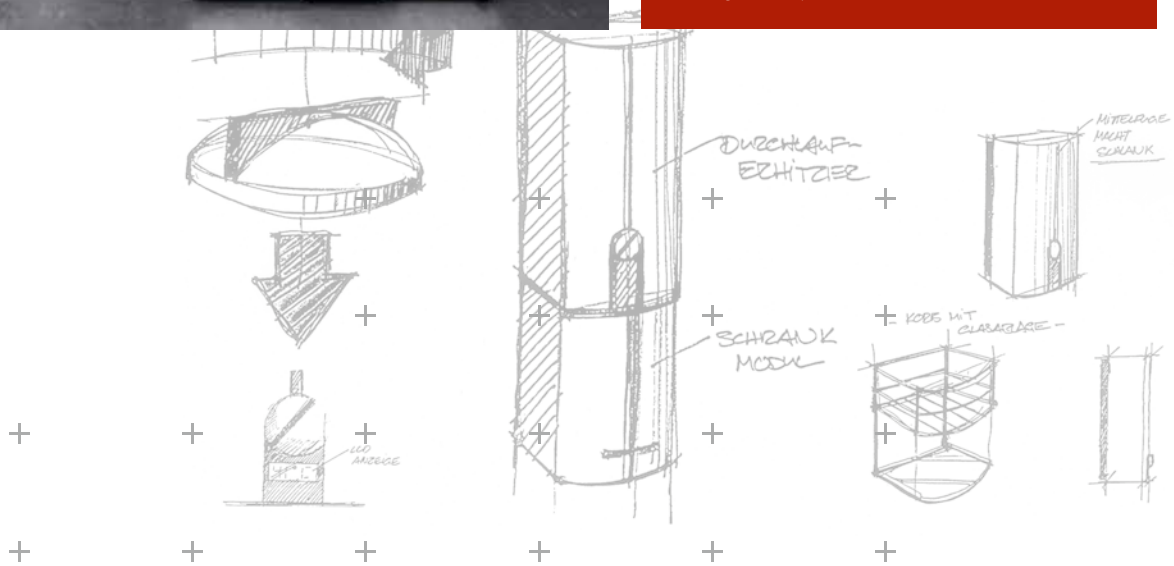
STIEBEL ELTRON undergoes a continuous optimisation process in line with the environmental management standard.

ISO 50001

We consistently record and manage the energy flows in the company in order to sustainably reduce consumption.

BS OHSAS 18001

STIEBEL ELTRON works in line with this occupational health and safety management system.



MARKET QUALITY

STIEBEL ELTRON is active in over 120 countries – and this number is rising. This also means dealing with a wide variety of climatic and legal requirements, as well as building types and customer needs. Our commitment is the same everywhere: we see ourselves as a partner in the local market and act according to local requirements. In order to do so, we develop products that suit the respective market and living conditions of the local population – for the success of our partners and the satisfaction of our customers.

MANUFACTURING QUALITY

Our success story is closely linked to our high-quality workmanship. All over the world we rely on German engineering skills. Because the best solutions are created in a traditional environment characterised by top-class engineering and highly qualified workers. After all, the only way to become a technology pioneer is if the technology itself is pioneering.

STIEBEL ELTRON

ENTERPRISING QUALITY

As an owner-managed company in Germany, we have very high standards when it comes to compliance and conduct. Our strict Code of Conduct and our leadership guidelines give us a clear focus – with regards to ethics, collaborations, partnerships and our products. The regularly verified ISO certifications confirm that our high quality standards apply throughout our company and are firmly rooted in it.

PRODUCT QUALITY

A precise interplay of all aspects is required to create what defines us: high-quality, durable products that meet all modern requirements, as well as the requirements of the respective country, our customers and partners. Because with the brand STIEBEL ELTRON, our customers buy first-class reliability – and fast service in the unlikely event that a product does not run perfectly.

STIEBEL ELTRON

Your local trade partner:

Have we sparked your interest? For further information see www.stiebel.com.au or consult your local trade partner.

STIEBEL ELTRON (AUST) Pty Ltd
1800 153 351 | info@stiebel.com.au | www.stiebel.com.au

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