

### Reduce energy costs and create environmentally friendly hot water all year round



Intelligent German engineering using air as an energy source for generating hot water for the entire household















### 66 77

"We needed to urgently replace our hot water system with an energy-efficient electric system. We have solar panels and, after much research, concluded that a heat pump was the most cost and energy effective solution for our set-up. We always have hot water, it's quite quiet (located behind our laundry), and our electricity cost has come right down to not much at all." Chloe. G.

# Energy efficient hot water with a STIEBEL ELTRON heat pump

### FIRST-CLASS CONVENIENCE FROM RIGHT OUTSIDE

The WWK 222 (H) and the WWK 302 (H) are compact domestic hot water heat pumps designed specifically for outdoor installation in Australia to supply domestic hot water to several draw-off points. Our heat pumps utilise the energy in the air to create environmentally friendly hot water all year round.

### WWK Domestic Hot Water Heat Pump

- > Engineered by Germany's market leader
- ) Designed for Australian conditions
- Active defrost function ensures energy-efficient operation down to -5°C
- Connects to solar PV automatically increases tank temperature during peak solar production\*
- Compatible with Energy Management System for optimal use of grid and solar energy
- High operational reliability and long service life due to impressed current anode
- ) Quiet operation due to encased compressor
- ) Can be installed indoors (13 m<sup>3</sup> required)
- ) H-models come with 1.7 kW smart element











<sup>\*</sup> Compatible solar inverter required



## Monitor your heat pump with a Digital LCD controller

### **NEW DEVELOPMENTS**

STIEBEL ELTRON WWK hot water heat pumps are factory-fitted with a digital LCD controller. The addition of this display brings new features for homeowners as well as providing more information on the operation of the appliance.

### Digital LCD Controller Features

- ) Displays the current tank temperature
- ) Displays the available mixed water volume
- Adjustment of tank temperature (61 − 65 °C)
- Displays any error codes for easy troubleshooting and maintenance
- Weather protection cover to protect against dust and moisture



### Inexpensive hot water out of thin air

STIEBEL ELTRON's premium quality hot water heat pumps use free natural energy from the air to create hot water. They provide an energy-efficient, environmentally responsible solution for year-round generation of hot water using minimal energy.

### **EXCELLENT ENERGY EFFICIENCY**

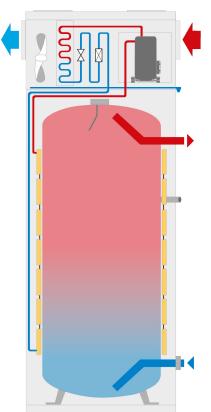
Our hot water heat pumps fit into the highest energy efficiency class.



### State-of-the-art Design to Create Hot Water

- 1. A fan draws air through an evaporator.

  Thermal energy within the air is transferred to a liquid refrigerant causing it to change into gas.
- 2. The refrigerant gas is then drawn into a compressor which increases the pressure and, as a result, increases the temperature.
- A condenser (heat exchanger) then transports gaseous refrigerant around the outside of the water cylinder.
   This heats the water inside and the gaseous refrigerant reverts back into a liquid.
- 4. The pressure of the refrigerant is reduced as it goes through an expansion valve and returns to the evaporator for the process to start all over again.

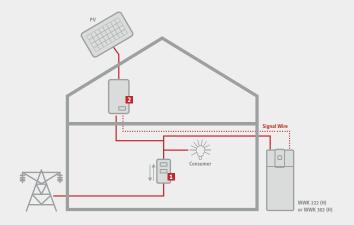




# A perfect match: Solar PV and the WWK heat pump

There are two possibilities for connecting the STIEBEL ELTRON WWK hot water heat pump to a solar PV system: Smart Grid (SG) Ready and Energy Management System (EMS) integration.

### **SG READY IMPLEMENTATION**



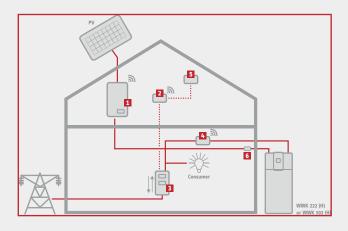
SG Ready implementation of connecting the STIEBEL ELTRON WWK hot water heat pump allows for a higher water temperature and more "free" hot water. A signal wire is connected from the solar PV inverter to the WWK activating a higher secondary water temperature set point.

### SG Ready Implementation Components

- 1. Two-way meter
- 2. Inverter



### **FULL EMS IMPLEMENTATION**



A full Energy Management System implementation provides the best holistic solution for connecting the STIEBEL ELTRON WWK hot water heat pump to a solar PV system. The EMS will activate the WWK to heat water at the best possible time to reduce consumption from the grid.

### EMS Implementation Components

- 1. Inverter
- 2. EMS
- 3. Two-way meter
- 4. Wireless socket
- 5. Internet router
- 6. Separate power supply for anode

\*Suitable solar PV inverter or contact switch necessary



	PREMIUM				
Model	WWK 222	WWK 222 H	WWK 302	WWK 302 H	
Power consumption heat pump (EN16147   A15)	0.55 kW	0.55 kW	0.55 kW	0.55 kW	
Power consumption smart element	N/A	1.7 kW	N/A	1.7 kW	
Connection	1/N/PE 220 - 240 V				
Max. operating current	3.18 A	9.70 A	3.18 A	9.70 A	
Rated capacity	220 L	220 L	302 L	302 L	
Maximum available nominal amount of hot water at 40 °C	360 L	360 L	540 L	540 L	
Set DHW temperature	61 °C	61 °C	61 °C	61 °C	
Max. DHW temperature	65 °C	65 °C	65 °C	65 °C	
Operating temperature range	-5 - 42 °C				
COP (seasonal average†)	3.94	3.94	3.94	3.94	
Refrigerant	R134a	R134a	R134a	R134a	
Smart element					
Solar PV compatible		•	•	•	
Height	1553 - 1569 mm	1553 - 1569 mm	1921 - 1937 mm	1921 - 1937 mm	
Diameter	690 mm	690 mm	690 mm	690 mm	
Weight (empty   filled)	120   340 kg	120   340 kg	135   437 kg	135   437 kg	

<sup>†</sup>Seasonal average COP for a WWK installed in zone 2

### GOVERNMENT REBATES FOR RENEWABLE ENERGY SYSTEMS

Rebates and financial incentives are offered Australia-wide at a federal and state level for using hot water heaters which are powered by renewable energy. Additional rebates may be available from state governments or local councils, depending on the type of water heater that is being replaced as well as the new system being installed.

	STCs per zone across Australia							
Model	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			
WWK 222	25	26	29	31	31			
WWK 222 H	25	26	29	31	31			
WWK 302	24	25	28	31	30			
WWK 302 H	24	25	28	30	30			





Your local trade partner:								
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Have we sparked your interest? For further information visit www.stiebel-eltron.com.au or call our service team on 1800 153 351.



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

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