



**EarthSaveProducts**  
Renewable Energy Solutions

## **SOLIS** DC INVERTER MULTIFUNCTIONAL HEAT PUMPS



# ESP SOLIS 11kW / 17kW

DC Inverter Heat Pumps use advanced air source heat pump technology to achieve high efficiency, reaching an industry high SCOP of up to 4.02. Using DC inverter technology, the SOLIS adjusts the output capacity automatically giving accurate room temperatures, using just the right amount of electricity to do so.

The intelligent control system means everyone in the family can control the unit. With their 'monobloc' design, the units are cost effective, space saving and quiet to run outside.

All of these features work together more intelligently to give you a more comfortable home.



## ESP Advanced Heat Pump Technology

### 101 DC INVERTER Technology

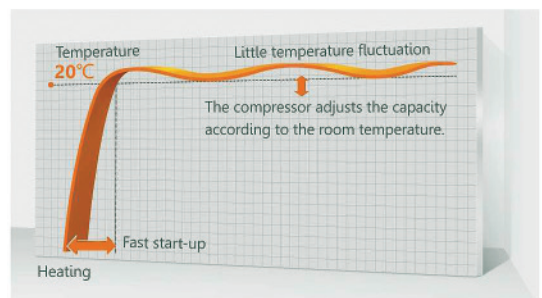
With the use of inverter compressors, brushless DC fan motors and power factor correction (PFC) control, the units constantly regulate the running capacity, saving energy. With no frequent start-up and stop cycles, the units stabilise their operation, achieving high efficiency. The energy consumption can be up to 30% less than that of standard heat pump units.



Standard heat Pumps ESP SOLIS Inverter Heat Pumps

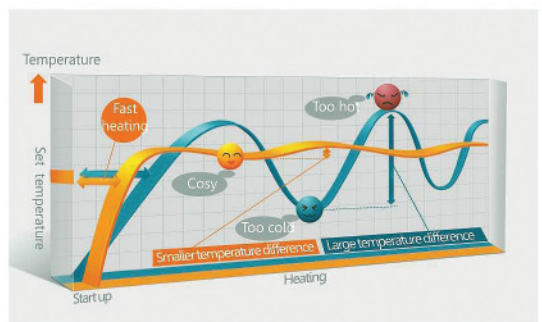
### 102 HIGHLY ACCURATE Temperature Control

The units change the operating frequency of the compressors automatically depending on the room heating or cooling demand. When the target room temperature is reached, the units run at a lower frequency, allowing flow temperature control accuracy as precise as 0.5°C.



### 103 FAST Heating/Cooling

When there is a large differential between the actual room temperature and the set temperature, the unit can run at a higher frequency allowing faster heating or cooling to increase or decrease the room temperature rapidly.



Standard heat Pumps ESP SOLIS Inverter Heat Pumps



# INTELLIGENT CONTROL SYSTEM Makes Your Home Smarter



## INDIVIDUAL ROOM TEMPERATURES

From one central control panel, you can conveniently set a different temperature for up to 32 zones.



## MOBILE APP CONTROL

You can remotely monitor and control your heat pump system by using your smart phone or even a smart watch anywhere at anytime.



## TEMPERATURE HOLD

Need an easy way to override the programmed temperature and apply to a number of rooms around your home for a particular amount of time? No problem. The temperature hold allows this - and it's so easy to use.

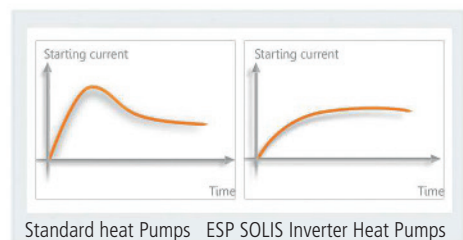
## 104 QUIETER Operation

Because there are no frequent start-up and stop cycles, the units give much more stable operation, significantly reducing noise.



## 105 LOWER CONSUMPTION Benefits

Because of its design, the DC inverter is highly efficient, reducing the amount of electricity used.



## 106 ROOM Thermostat

The units are compatible with the (optional) Heatmiser Neo Hub thermostat range which, when connected to the internet, allows temperature control of each room from anywhere in the world.



### PROFILES

Set pre-programmed profiles for your rooms. For example: when the kids are back at home; it's a holiday; or you're working from home that day. You can easily select the profile that suits you best.



### REAL TIME DISPLAY

Our SmartPhone Apps present the real time view of the temperature in your home to within 0.1°C accuracy - no more wondering if your home is freezing whilst you are away on your winter holiday.



### GEO LOCATION

Geo Location makes it even more easier to reduce your energy costs. Using the Location Services feature on your iPhone or Android SmartPhone, the system can lower the temperature in your home when it detects the last person has left and will turn the heating back up when it detects someone is on their way home.

## IMPORTANT Components

### WORLD LEADING COMPRESSOR

DC inverter scroll compressor with 20% higher energy efficiency than that of a traditional fixed frequency one.

### INVERTER DRIVE

Using digital signal processing chips and a PMSM sinusoidal wave control method, the working voltage range is wider giving more accurate control.

### PATENT HEAT EXCHANGER

Patented countercurrent heat exchangers greatly improve the efficiency and reliability of the heat pump.

### CPP CONTROLLER

CPP controllers with intelligent control and detection make the units much more user-friendly.



### WILO WATER PUMP

Using a WILO water pump, with PWM speed control, power consumption is 80% less than that of a traditional one.

### BRUSHLESS DC FAN MOTOR

The brushless DC fan motor with stepless speed operation improves energy savings by more than 30%.

### FIN TYPE HEAT EXCHANGER

Golden anti-corrosion aluminium fins specially designed for the heat pump greatly extend their durable life span..

### ELECTRONIC EXPANSION VALVE

The electronic expansion valves are critical to controlling refrigerant volume accurately, thus reducing energy consumption.



### SMARTDEFROSTING

Compared to temperature probe defrosting, the use of pressure probe defrosting logic makes defrosting the SOLIS a much faster process.





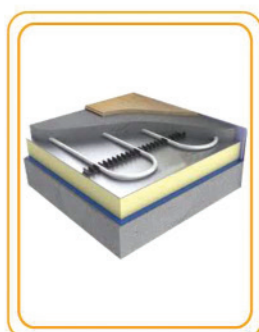
**SOLIS 11kW**



**SOLIS 17kW**



+



or



● **ALL DC INVERTER HP**

This all DC inverter heat pump with a SCOP of up to 4.02 achieves the ErP standard in the European market and uses eco-friendly refrigerant R410A. It's monobloc design makes it ideal for siting outdoors.

● **UNDER FLOOR HEATING**

The SOLIS units allow you the freedom to design your rooms without obtrusive radiators. UFH is extremely efficient, and is also compatible with other renewable energy sources.

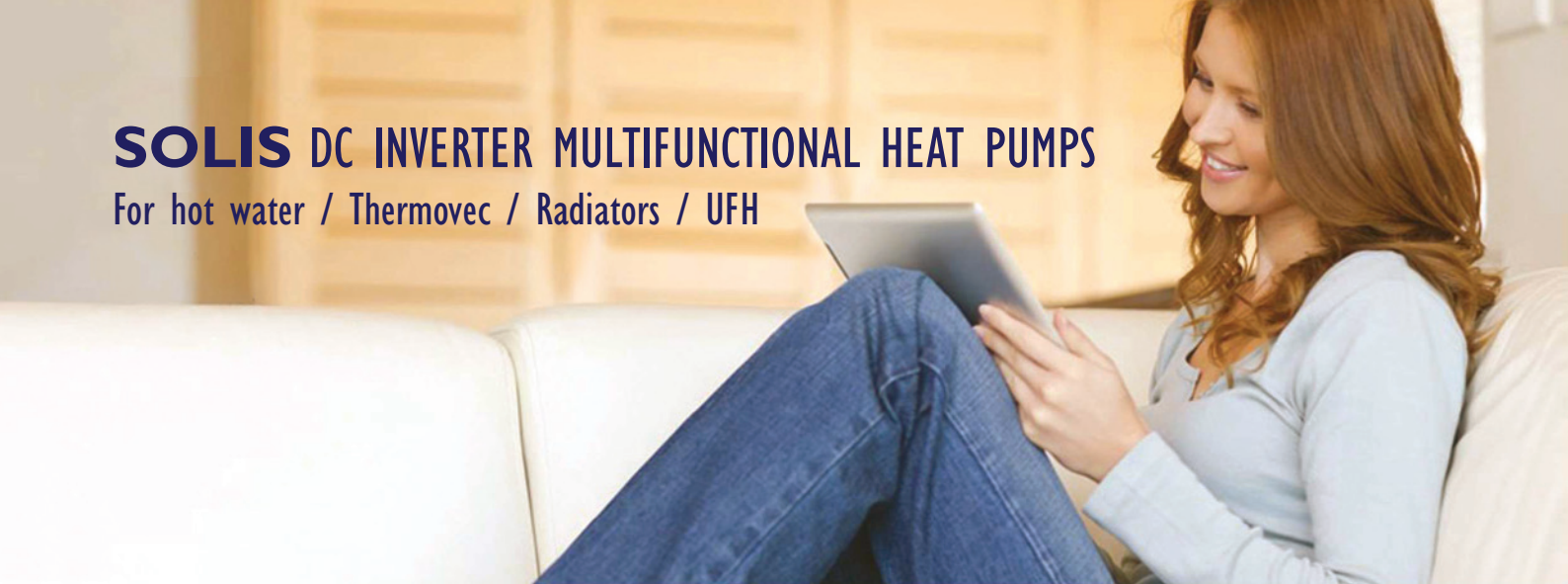
● **FAN COIL or RADIATOR**

ESP's Thermovec fan assisted radiator has a DC fan motor inside allowing precise temperature control with the ability to reach 55°C. The SOLIS can also work with standard radiators.

\*These units are capable of providing domestic hot water too, but please consult us for the most efficient method of achieving this.

# SOLIS DC INVERTER MULTIFUNCTIONAL HEAT PUMPS

For hot water / Thermovec / Radiators / UFH



Model		SOLIS 11kW	SOLIS 17kW
ErP Energy Label	/	A++	A++
Power Supply	/	230V~/50Hz	230V~/50Hz
Rated Heating Capacity	kW	11.60	16.70
Rated Heating Input	kW	2.52	3.56
Rated Heating Current	A	11.2	15.5
SCOP	/	3.95 @ 35° / 2.88 @ 55°C	4.02 @ 35°C / 2.97 @ 55°C
Rated Cooling Capacity	kW	11.40	16.50
Rated Cooling Input	kW	3.05	4.45
Rated Cooling Current	A	13.4	19.1
Max Input Power (incl. immersion heater)	kW	3.45	5.75
Max Input Current (incl. immersion heater)	A	15.0	25.0
Water Connection	/	DN25	DN25
Noise	dB(A)	49	52
Net/Gross Weight	kg	125	150
Net Dimensions	mm	1118*470*970*	1118*470*1270*
Net Volume of Unit	m <sup>3</sup>	.472	.617
Colour	/	Silver Grey	Silver Grey

The data above is for reference only. For more specific data, please refer to the dataplate on the unit.

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