

# Skyline Energy – Ecological Solutions

## Solar Electricity, Solar Hot Water, Heat-Pumps, and Hydronic Heating

### Model SX-19ZA –Hydrocarbon Heat Pump

Ideal for hydronic heating systems in climates where frost is not a regular occurrence.

#### Specifications: Model SX-19ZA

Voltage / Phase	240v 50Hz/ 1Phase
Power input range	3.2kW-5kW
Suitable floor area for slab heating	Up to 190sqm Approx. <sup>1</sup>
Not suitable for panel heating	
Working air temp range	-19°C - +45°C
Compressor (Copeland Scroll)	ZR61KC-PFZ-522
Refrigerant	Hydrocarbons
inlet/outlet connections diameter	25mm
Recommended Primary Circ Pump	GPD32-9 - GPD25-16
Maximum Outlet Water Temp	55°C
Noise Level (dBa) @ 3 metres	56dBa
Defrost	reverse cycle
Cabinet Construction	Mild Steel
Dimensions (mm)	1120L x 650W x 1270H
Weight – empty	190Kg
Warranty (from 2017 onward)	3yrs <sup>2</sup>

SX-19ZA model uses Ziehl-Abegg “OWL” fans for improved airflow, higher efficiency and quieter operation – especially recommended for home heating where sound-level could be an issue.



- Quiet yet powerful (ZA fans)
- Economical to operate
- Running costs can be offset with Solar Electricity



Unit specifications subject to change without notice

1. SIZING IS FOR NEW 5-STAR THERMAL EFFICIENCY BELOW 500m ALTITUDE - CALL FOR FURTHER SIZING INFORMATION

\* 2. Subject to suppliers sizing and installation guidelines being followed (there may be a travel charge for on-site service if there is a significant distance)

### HEATING THE NATURAL WAY

**A Cold Climate Air Sourced Hydronic Heat Pump uniquely extracts solar heat energy found abundant in the in air and transfers it to water.**

Our Cold Climate Air Sourced Hydronic Heat Pump technology has a vast potential for harnessing renewable energy, reducing energy consumption and emissions. The SX-19ZA is able to extract heat from the air and concentrate it to provide hot water for heating homes and commercial buildings. The only energy required is that which is used to concentrate the thermal energy – so the system can provide a heat output up to four times larger than the energy input. Running costs are similar to Natural GAS Boilers, however in non-GAS areas it can potentially reduce heating costs by more than 75% compared to other fuels like LPG and straight electricity.

Because they don't rely on direct sunlight radiation, they can operate in all seasons of the year, under all conditions; shade, overcast, sun, rain, frost, even at night.

Long after a conventional solar collector array would have given up and reverted to its booster, our heat pump is still absorbing vast amounts of solar energy.

Unlike much of Europe where hydronic heating has been used for decades, in most area's of Australia a Cold Climate Air Sourced heat pump, used in conjunction with Solar Electricity will outperform a ground sourced heat pump, and generally at a much lower overall installation cost, and there is no need bury hundreds of metres of pipes in the paddock.

With zoning control and even remote activation by telephone if required, used in conjunction with good building practices such as good insulation, passive solar design, hydronic heating with our state of the art, correctly sized heat pumps can be an economical and ecological, wise investment for your home heating requirements.

... "let us exceed your expectations"

**1300 552 976**

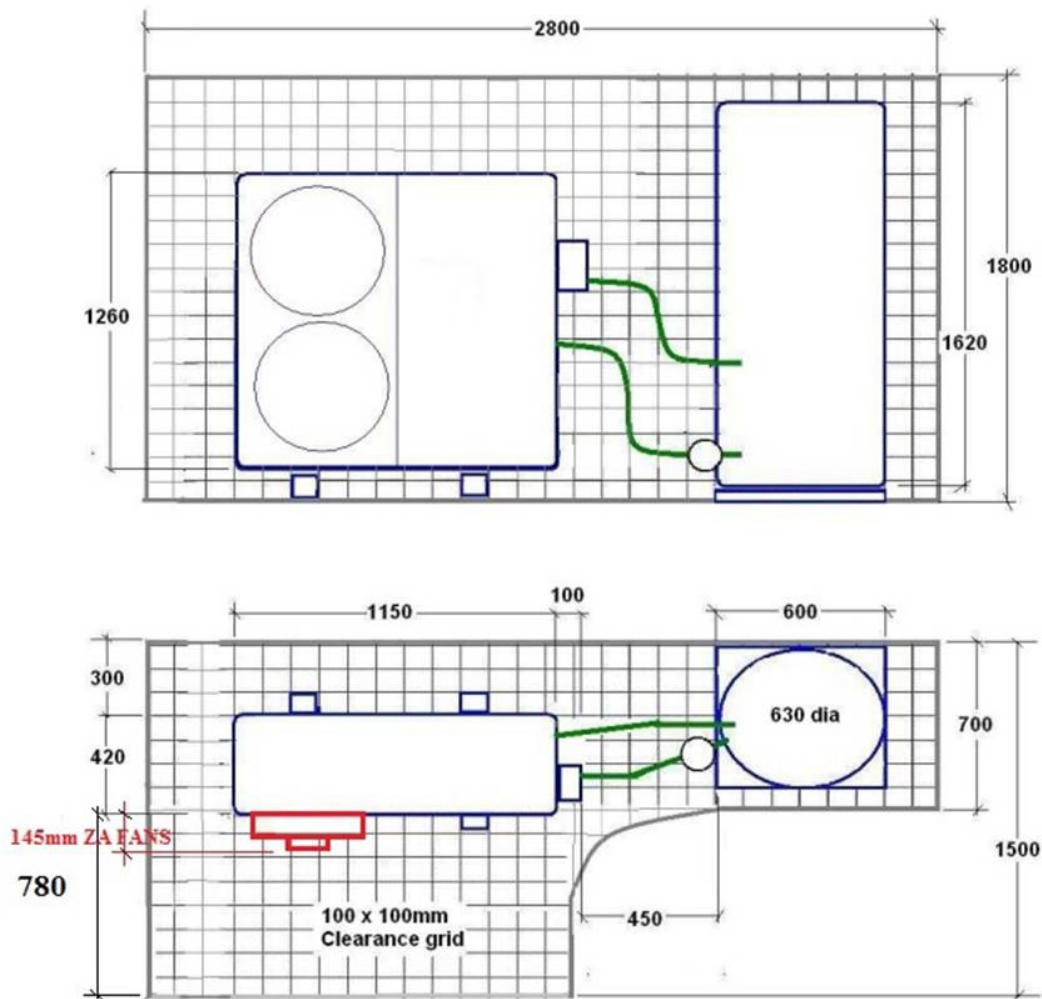
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## Solar Electricity, Solar Hot Water, Heat-Pumps, and Hydronic Heating

This is minimum clearances for a close-coupled buffertank.



### Airflow

- In general, all heat-pumps require at least 1 meter of clearance on all sides.
- For optimum performance allow 2 meters clearance in front of the fans.
- Fresh air flow is critical... avoid waste cold air back-feeding to the unit and driving down its efficiency.
- Do not place trellis in front of the fans. If the unit must be hidden, then it is best to use louvers.
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### Water flow-rate

- Before anything else you MUST achieve the required water flow-rate...
- Correct water flow-rate is critical to efficiency.
- Just because a unit is heating does not mean its running efficiently.
- Incorrect flow-rate may result in poor efficiency, and greater power usage.
- Avoid restrictive plumbing, use large diameter pipes and limit or avoid using elbows.
- Water temperature-rise across the inlet and outlet ports is directly proportional to the flow-rate.
- Generally, the higher the water flow-rate, the lower the temperature rise, and the higher the efficiency.

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