

## Product Information – 20kW High Temperature Ground Source Heat Pumps (SIH20TE)



### **Dimplex**

#### Integrated Ground Source Heat Pump

The Dimplex SIH TE high temperature ground source heat pump provides variable water flow temperatures up to 70°C, providing a solution for buildings with high temperature heating systems (radiators) or where high temperature hot water storage is required. This model utilise the WPM2007 heat pump manager, allowing independent control over multiple heating circuits at differing flow temperatures.

#### Range features

- 2 high temperature models with nominal heating capacities of 20kW and 40kW
- Variable heating water flow temperatures from 35°C to 70°C with weather compensation
- Twin compressors for higher capacity output
- Intelligent switching between single and dual compressor modes, maximising efficiency and compressor duty cycle
- WPM2007 heat pump manager with removable control panel
- Suitable for use with underfloor heating, Dimplex SmartRad fan convectors or conventional radiator systems and to provide domestic hot water at stored water temperatures of up to 60°C
- Three phase electrical connection, with electronic soft start to reduce start current loads
- Able to use ground water as a heat source with the addition of an intermediate heat exchanger
- Matching 400 litre domestic hot water cylinder

The heat pump complies with the valid standards and safety regulations as well as the Technical Specifications for Electrical Installations (TAB) of the electrical utility companies and is VDE certified.



Ground source heat pumps use the solar energy stored in the ground to heat your home and provide hot water. They extract the heat from the earth using collectors – consisting of plastic pipes – buried underground. Because the source of heat is free, ground source heat pumps can reduce energy costs, especially when compared to oil and LPG heating systems, plus they're virtually maintenance free. A particular benefit of ground source heat pumps is that even at a depth of 1m, the ground maintains a fairly constant temperature, so the systems perform well all year round.



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Set-up / Colour		Indoors / White
Maximum flow temperature		70°C
Temperature operating limits for brine		-5°C to 25°C
Heat output / COP at B0/W50*	kW/-	1 compr.: 10,50 / 3,20 2 compr.: 21,30 / 3,30
Heat output / COP at B0/W35*	kW/-	1 compr.: 11,80 / 4,80 2 compr.: 21,80 / 4,70
Electrical nominal power consumption at B0/W35	kW	4,70
Refrigerant R4134aC	kg	4,20
Flow rate (heat source) at int. pressure differential	m <sup>3</sup> h Pa	5,10 / 11000
Heating water flow rate with an int. pressure differential of	m <sup>3</sup> h Pa	1,90/ 2310
Dimensions (W x D x H)**	mm	1000 x 775 x 1660
Weight (incl. packing)	kg	307
Connection voltage		3/N/PE~400V, 50Hz
Starting current with soft-starter	A	30
Fuse protection	A	25
Device connections for heating		1 ¼"
Device connections for heat source		1 ½"

\* The specified values have the following meaning, e.g. B0/W35: heat source temperature 0 °C, heat outlet temperature 35 °C.

\*\* Please note that additional space is required for pipe connections, operation and maintenance



### Buffer tanks

Connection of a buffer tank ensures minimum compressor run times and minimum water flow rates through the heat pump to maintain optimum efficiency. A buffer is essential for air source heat pumps as it provides the energy for defrosting. Where the heat pump provides the sole source of heating, an electric immersion element can also be integrated to provide supplementary heating if required. For internal installations, the PSP range fits neatly under the heat pump to make best use of the space available.

Model	Capacity (litres)	Dimensions (mm)	For use with
PSW100	100	Ø512x850	Heat pumps up to 12kW
PSP100E	100	740x740x240	SI ME & SIK models
PSW200	200	Ø600x1300	Heat pumps up to 30kW
PSW500	500	Ø700x1950	All heat pumps

## Contact Us 01993 847522

## Email [info@opc-ltd.co.uk](mailto:info@opc-ltd.co.uk)

**OPC Ltd**

Unit F

Three Michaels Yard

Carterton South Industrial Estate

Carterton

Oxfordshire

OX18 3EZ