PROJECT INFORMATION

Customer	Prism AG	
Project	81 Swallow Hill Road	
Location	S75 1LY	
Design outdoor temperature	**-2.8**	°C
Annual average temperature	**10**	°C
Floor area	292.65	m2
Peak power demand	**8.19**	kW
Annual heating energy demand	**18814**	kWh
Annual hot water energy demand	3057	kWh
Total energy demand	21871	kWh

IMS Heat Pumps Est.1997

HEAT PUMP SYSTEM INFORMATION

Manufacturer	Vaillant	
Model	**aroTHERM+ 10**	
MCS registration number	KIWA 00016/022 HP	
Heat pump type	Air Source	
Required electricity supply	single phase	230V

AUXILIARY HEATER (if applicable)

Type	**integral immersion**	
Energy coverage	0.0%	
Energy supplied/yr	**0**	kWh

SPACE HEATING INFORMATION

Heat emitter type	**underfloor heating & radiators**	
Design flow temperature (°C)	41	
System circulation pump	**Grundfos Alpha2 25/50**	
Heat pump power @ DOT	**9.5**	kW
Power coverage	100%	
Total energy provided	18814	kWh
Energy coverage	100.0%	
Heating SCOP	4.49	
MCS star rating	****	
FLEQ run hours	2302	

FUEL COST & CARBON FACTORS

	p/kWh	kg CO2/kWh
Electricity	£0.2236	0.225
Oil	£0.0900	0.298
LPG	£0.0870	0.24
Mains gas	£0.0548	0.213
Coal/solid fuel	£0.0890	0.404
Woodchip	£0.1380	0.048

Sources: Energy Saving Trust

www.energysavingtrust.org.uk/about-us/our-data

Ofgem energy cap:

https://www.ofgem.gov.uk/

DOMESTIC HOT WATER INFORMATION

Total energy provided	**3057**	kWh
Hot water energy coverage	100%	
Hot water heating flow temp	55°C	
Hot water SCOP	3.58	
Immersion heater cycle	**weekly**	
Minimum cylinder volume	180	litres
Specified cylinder volume	**180**	litres
Re-heat time - SUMMER	60	minutes
Re-heat time - WINTER	120	minutes

HEAT PUMP ELECTRICITY CONSUMPTION

Space heating	4190	kWh / yr
Hot water heating	854	kWh / yr
Immersion heater	109	kWh / yr
Circulation pump	74	kWh / yr
Total electricity consun	5227	kWh / yr
Aux heater fuel	0	kWh / yr
Estimated Heat Pump fuel cost	**£1,169**	**per year**

INFLATION RATE

Consumer Prices Index (CPI)	**8.60%**
Electricity price inflation (est)	**54.00%**
oil/gas price inflation (est)	**98.50%**

www.ons.gov.uk/economy/inflationandpriceindices

ALTERNATIVE OPTION TO A HEAT PUMP

Boiler type	**Mains Gas Boiler**	
Efficiency	**90%**	
Estimated fuel cost	**£1,348**	**per year**

The performance of microgeneration heat pump systems is impossible to predict with certainty due to the variability of the climate and its subsequent effect on both heat supply and demand. This estimate is given as guidance only and should not be considered a guarantee.