

Heat Pump Design Calculations		
Project Reference: 49886157		

SPACE HEATING ANNUAL HEAT DEMAND		
Demand	kWh/yr	25258
Heat supplied by HP, excluding auxiliary heaters	kWh/yr	25258
Seasonal Coefficient of performance SCOP	SCOP	04
Electricity consumed by HP, excluding auxiliary heaters	kWh/yr	6315
Renewable heat supplied by HP	kWh/yr	18944
Remaining heat to be supplied by auxiliary heaters and other heat source	kWh/yr	0
Remaining heat, supplied by other heat sources	kWh/yr	0
Remaining heat, supplied by auxiliary heaters	kWh/yr	0
Electricity consumed by HP, including auxiliary heaters	kWh/yr	6315
Where other heat sources are used:		
Fuel used	N/A	
Efficiency of other heat sources	%	0
Consumed by other heat sources	kWh/yr	0

WATER HEATING ANNUAL HEAT DEMAND		
Demand	kWh/yr	4720
Heat Supplied by HP, excluding immersion heater	kWh/yr	4720
SCOP of HP in Hot water mode	SPF/SCOP	0000
Electricity consumed by HP, excluding immersion heater	kWh/yr	0
Renewable heat supplied by HP	kWh/yr	4720
Remaining heat to be supplied by immersion heater and other heat sources	kWh/yr	156
Remaining heat, supplied by other heat sources	kWh/yr	0
Remaining heat, supplied by immersion heater	kWh/yr	156
Electricity consumed by HP, including immersion heater	kWh/yr	156
Where other heat sources are used:		
Fuel used	N/A	
Efficiency of other heat sources	%	0
Consumed by other heat sources	kWh/yr	0

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PROPORTIONS, ENERGY CONSUMPTION, AND PERFORMANCE		
Proportion of space heating and water heating demand provided by heat pump (excluding auxiliary/immersion heaters)	%	100
Capacity @ design conditions	kW	16
Renewable heat	kWh/yr	23663
Electricity consumed by HP (excluding auxiliary/immersion heaters)	kWh/yr	6315
Electricity consumed by immersion (supplied as part of HP)	kWh/yr	156
Fuel consumed by auxiliary/other heat sources	kWh/yr	0
HP combined performance SCOP	SCOP	4.66
Star Rating / Flow Temperature	4 / 45°C	
Outside air temperature	-2.75°C	

RUNNING COSTS (Based on Calculations)		
Cost per unit of electricity for HP	p/kWh	020
Cost per unit of fuel for other heat sources	p/kWh	0
Cost of electricity for HP (including auxiliary/immersion heaters)	£/yr	1294
Cost of fuel for other heat sources	£/yr	0

Disclaimer
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 based upon the best available information but is given as guidance only and should not be considered as a guarantee.