



## Heat pump Dimensioning Report

## Anne Marie McCullagh Solution 1 - Atec 6

Anne Marie McCullagh Clonlea Lodge - Dublin

IRELAND Phone:

Email:

**Installation Address** 

Anne Marie McCullagh Clonlea Lodge - Dublin

IRELAND

Date

15/11/2016

Reseller

Roberto Margara

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- -

Phone:

Email:

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With the selected Thermia heat pump solution you can save up to €479 per year!



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	Energy	Cost	
The Building's Energy demand			
Heat	8,291 kWh/year	€691/year	
Hot Tap Water	3,500 kWh/year	€292/year	
Total	11,791 kWh/year	€983/year	
Energy use with quoted Heat Pump			
Heat	2,151 kWh/year	€323/year	
Hot Tap Water	1,206 kWh/year	€181/year	
Total	3,357 kWh/year	€504/year	
Savings with quoted Heat Pump, net	8,434 kWh/year	€479/year	
Savings with quoted Heat Pump, gross	4,934 kWh/year	€479/year	
Seasonal Performance of the system* = 3.51			
Cost calculation based on current Oil and Sola Electricity price for the heat pump €0.15/kWh.	ar prices, €750/m³		

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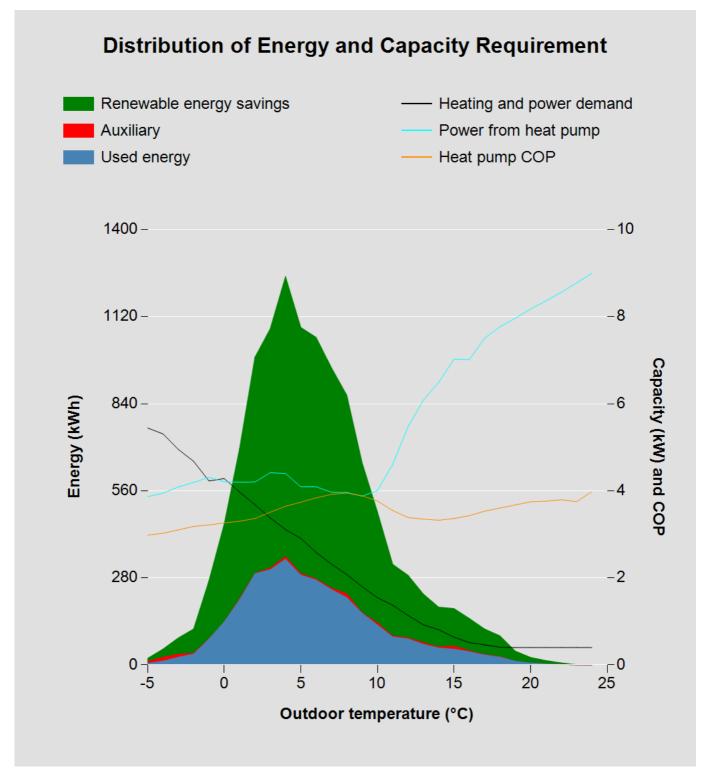
<sup>\*</sup> The seasonal performance factor is the relationship between the amount of heat generated and the amount of electricity consumed during one year. Heating of domestic hot water is included

<sup>\*\*</sup> The Seasonal Energy Efficiency Ratio shows the relationship between delivered cooling energy and bought electricity during a period of one year.

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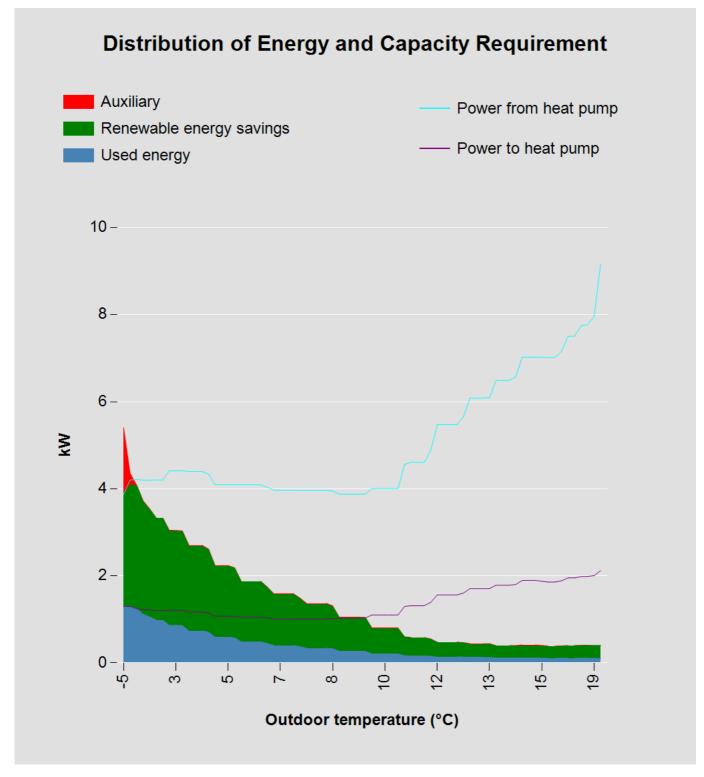


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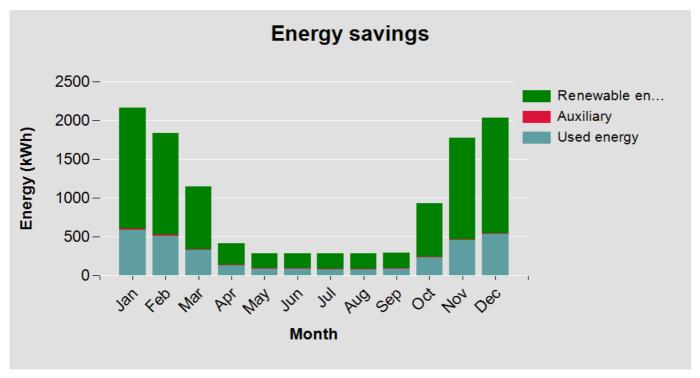


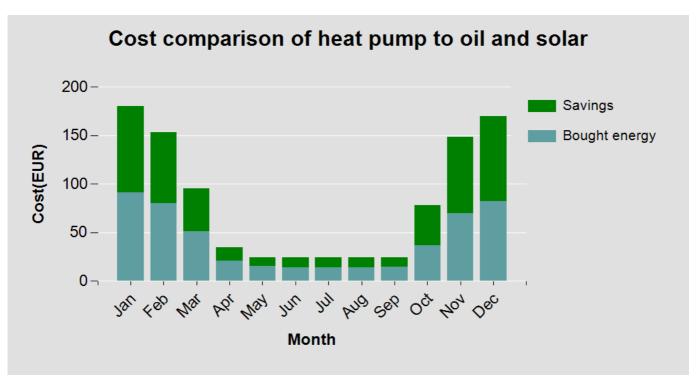
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Cost calculation based on current Oil and Solar prices, €750/m³ Electricity price for the heat pump €0.15/kWh.

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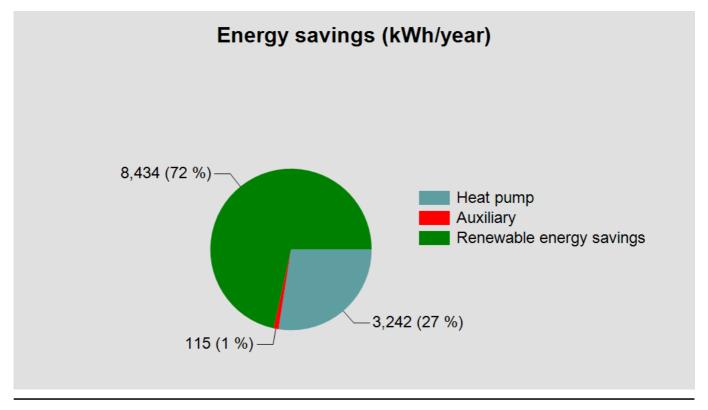
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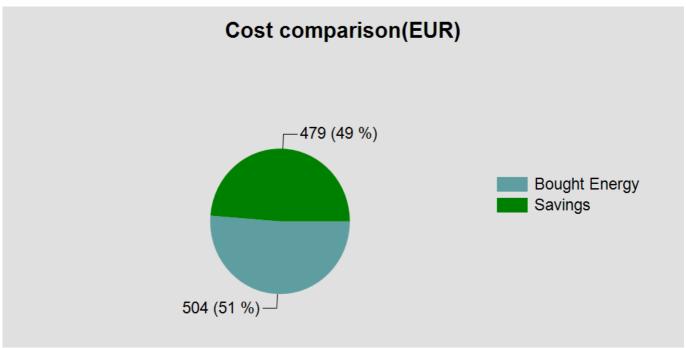
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Cost calculation based on current Oil and Solar prices, €750/m³ Electricity price for the heat pump €0.15/kWh.

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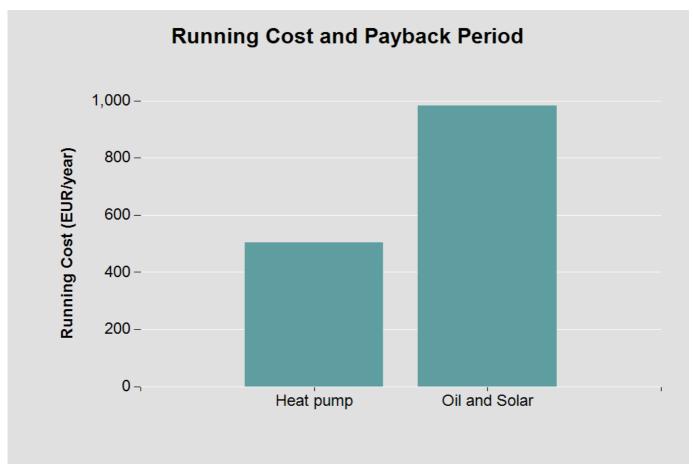
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#### Calculation Results

	Heat pump	Oil and Solar
Investment cost	€8,632	€8,000
Running cost	€504	€983
Payback period(yrs)		1.3

Cost calculation based on current prices: Electricity to heat pump: €0.15/kWh
Oil and Solar: €750/m³

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# Calculation details - results

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#### **Heating and Domestic Hot Water**

Total supplied energy, incl hot water	11,791	kWh
Energy supplied by heat pump(s)	11,676	kWh
Energy used by heat pump(s)	3,242	kWh
thereof for internal circulation pump(s)	161	kWh
Energy used by auxiliary heater	115	kWh
Integrated (η=100%)	115	kWh
Total energy used(bought)	3,359	kWh
Energy saving	8,432	kWh
Seasonal Performance Factor, excl auxiliary heater	3.6	
Seasonal Performance Factor	3.5	
Required power at DOT	4.7	kW
Heat pump power at DOT	3.9	kW
Required aux. power at DOT	0.8	kW
Energy coverage rate	99	%
Power coverage at DOT, heat pump only	83	%
Running hours	2,130	h

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# Calculation details - input data

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Location: Dublin (53.2752N, -6.2446E)

Annual mean temperature	9.5 °C
Building: Building1	
Heated area	155 m²
Window area (%)	41 m²
Total number of floors	2
Indoor temperature	21.0 °C
Internal heat gains	5.0 °C
Dimensioning Outdoor Temperature	-2 °C
Heating system	Custom
Supply line temperature at DOT	33 °C
Return line temperature at DOT	25 °C
Specific power	28 W/m²
Domestic Hot Water Energy	3,500 kWh
Total tank volume	180 I
Heat pump(s)	
Atec 6	1 pcs

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# Ecolabel product information

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Declared load profile Energy efficiency class water heater Energy efficiency class space heating Energy efficiency class space heating built in temperature control package A+ Energy efficiency class space heating, low temp. app. Energy efficiency class space heating, low temp. app. Built in temp. control A+ Energy efficiency class space heating, low temp. app. Built in temp. control A+ Rated heat output (colder climate) A+ Rated heat output (colder climate) A+ Rated heat output (colder climate) A+ Rated heat output, low temp. app. (average climate) A+ Rated heat output, low temp. app. (colder climate) A+ Rated heat output, low temp. app. (colder climate) A+ Rated heat output, low temp. app. (colder climate) A+ Rated heat output, low temp. app. (colder climate) A+ Rated heat output, low temp. app. (colder climate) A+ Rated heat output, low temp. app. (colder climate) A+ Rated heat output, low temp. app. (colder climate) A+ SCOP (average climate) A+ SCOP (average climate) A+ SCOP (warmer climate) A+ SCOP, low temperature application (average climate) A+ SCOP, low temperature application (colder climate) A+ SCOP, low temperature application (colder climate) A+ Seasonal space heating Energy efficiency (average climate) A+ Seasonal space heating Energy efficiency (colder climate) A+ Seasonal space heating Energy efficiency (colder climate) A+ Seasonal space heating Energy efficiency, temp. control (average climate) A+ Seasonal space heating Energy efficiency, temp. control (colder climate) A+ Seasonal space heating Energy efficiency, temp. control (colder climate) A+ Seasonal space heating Energy efficiency, low temp. app. (average climate) A+ Seasonal space heating Energy efficiency, low temp. app. (average climate) A+ Seasonal space heating Energy efficiency, low temp. app. (average climate) A+ Seasonal space heating Energy efficiency, low temp. app. (average climate) A+ Seasonal space heating Energy efficiency, low temp. app. (average climate) A+ Annual energy consumption (warer climate) Annual energy consumption	Heat pump(s)	Atec 6	
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SCOP, low temperature application (colder climate)  SCOP, low temperature application (warmer climate)  Seasonal space heating Energy efficiency (average climate)  Seasonal space heating Energy efficiency (colder climate)  Seasonal space heating Energy efficiency (warmer climate)  Seasonal space heating Energy efficiency (warmer climate)  Seasonal space heating Energy efficiency, temp. control (average climate)  Seasonal space heating Energy efficiency, temp. control (colder climate)  Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (warmer climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app.	SCOP (warmer climate)	3.45	
SCOP, low temperature application (warmer climate)  Seasonal space heating Energy efficiency (average climate)  Seasonal space heating Energy efficiency (colder climate)  Seasonal space heating Energy efficiency (warmer climate)  Seasonal space heating Energy efficiency (warmer climate)  Seasonal space heating Energy efficiency, temp. control (average climate)  Seasonal space heating Energy efficiency, temp. control (colder climate)  Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (warmer climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Annual energy consumption, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Annual energy consumption, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low t	SCOP, low temperature application (average climate)	3.56	
Seasonal space heating Energy efficiency (average climate)  Seasonal space heating Energy efficiency (colder climate)  Seasonal space heating Energy efficiency (warmer climate)  Seasonal space heating Energy efficiency, temp. control (average climate)  Seasonal space heating Energy efficiency, temp. control (colder climate)  Seasonal space heating Energy efficiency, temp. control (colder climate)  Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency	SCOP, low temperature application (colder climate)	3.12	
Seasonal space heating Energy efficiency (colder climate)94 %Seasonal space heating Energy efficiency (warmer climate)135 %Seasonal space heating Energy efficiency, temp. control (average climate)139 %Seasonal space heating Energy efficiency, temp. control (colder climate)122 %Seasonal space heating Energy efficiency, temp. control (warmer climate)186 %Seasonal space heating Energy efficiency, low temp. app. (average climate)106 %Seasonal space heating Energy efficiency, low temp. app. (colder climate)95 %Seasonal space heating Energy efficiency, low temp. app. (warmer climate)137 %Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)141 %Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)123 %Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)187 %Annual energy consumption (average climate)4337 kWhAnnual energy consumption (colder climate)6013 kWhAnnual energy consumption (warmer climate)2779 kWhAnnual energy consumption, low temp. app. (average climate)2941 kWhAnnual energy consumption, low temp. app. (colder climate)3571 kWhAnnual energy consumption, low temp. app. (warmer climate)3110 kWhAnnual energy consumption, low temp. app. (warmer climate)3571 kWhAnnual energy consumption, low temp. app. (warmer climate)3110 kWhSound power levels outdoors61 dB	SCOP, low temperature application (warmer climate)	4.72	
Seasonal space heating Energy efficiency (warmer climate)  Seasonal space heating Energy efficiency, temp. control (average climate)  Seasonal space heating Energy efficiency, temp. control (colder climate)  Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal	Seasonal space heating Energy efficiency (average climate)	105	%
Seasonal space heating Energy efficiency, temp. control (average climate)  Seasonal space heating Energy efficiency, temp. control (colder climate)  Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  61 dB	Seasonal space heating Energy efficiency (colder climate)	94	%
Seasonal space heating Energy efficiency, temp. control (colder climate)122 %Seasonal space heating Energy efficiency, temp. control (warmer climate)186 %Seasonal space heating Energy efficiency, low temp. app. (average climate)106 %Seasonal space heating Energy efficiency, low temp. app. (colder climate)95 %Seasonal space heating Energy efficiency, low temp. app. (warmer climate)137 %Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)141 %Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)123 %Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)187 %Annual energy consumption (average climate)4337 kWhAnnual energy consumption (colder climate)6013 kWhAnnual energy consumption (warmer climate)2779 kWhAnnual energy consumption, low temp. app. (average climate)2941 kWhAnnual energy consumption, low temp. app. (colder climate)3571 kWhAnnual energy consumption, low temp. app. (warmer climate)2110 kWhSound power levels outdoors61 dB	Seasonal space heating Energy efficiency (warmer climate)	135	%
Seasonal space heating Energy efficiency, temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  106 %  84  85  86  86  86  86  86  86  86  86  86	Seasonal space heating Energy efficiency, temp. control (average climate)	139	%
Seasonal space heating Energy efficiency, low temp. app. (average climate)  Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  106 %  895 %  895 %  895 %  896 897 898 899 899 899 899 899 899 899 899	Seasonal space heating Energy efficiency, temp. control (colder climate)	122	%
Seasonal space heating Energy efficiency, low temp. app. (colder climate)  Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  95 %  80	Seasonal space heating Energy efficiency, temp. control (warmer climate)	186	%
Seasonal space heating Energy efficiency, low temp. app. (warmer climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  137 %  141 %  161 dB	Seasonal space heating Energy efficiency, low temp. app. (average climate)	106	%
Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  141 %  123 %  143 %  6013 kWh  6013 kWh  6013 kWh  6014 kWh  6015 kWh  6015 kWh  6016 kWh  6017 kWh  6018 kWh  6018 kWh  6019 kWh  6019 kWh  6010 kWh  6010 kWh  6010 kWh  6010 kWh	Seasonal space heating Energy efficiency, low temp. app. (colder climate)	95	%
Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)  Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  123 %  187 %  4337 kWh  Annual energy consumption, low temp. app. (average climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  61 dB	Seasonal space heating Energy efficiency, low temp. app. (warmer climate)	137	%
Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)  Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  2110 kWh  Sound power levels outdoors	Seasonal space heating Energy efficiency, low temp. app., temp. control (average climate)	141	%
Annual energy consumption (average climate)  Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  4337 kWh  2779 kWh  2781 kWh  Annual energy consumption, low temp. app. (colder climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  61 dB	Seasonal space heating Energy efficiency, low temp. app., temp. control (colder climate)	123	%
Annual energy consumption (colder climate)  Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  2110 kWh  Sound power levels outdoors  61 dB	Seasonal space heating Energy efficiency, low temp. app., temp. control (warmer climate)	187	%
Annual energy consumption (warmer climate)  Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  3571 kWh  Annual energy consumption, low temp. app. (warmer climate)  2110 kWh  Sound power levels outdoors  61 dB	Annual energy consumption (average climate)	4337	kWh
Annual energy consumption, low temp. app. (average climate)  Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  2941 kWh  2571 kWh  2110 kWh  61 dB	Annual energy consumption (colder climate)	6013	kWh
Annual energy consumption, low temp. app. (colder climate)  Annual energy consumption, low temp. app. (warmer climate)  Sound power levels outdoors  3571 kWh  2110 kWh  61 dB	Annual energy consumption (warmer climate)	2779	kWh
Annual energy consumption, low temp. app. (warmer climate)  2110 kWh Sound power levels outdoors  61 dB	Annual energy consumption, low temp. app. (average climate)	2941	kWh
Sound power levels outdoors 61 dB	Annual energy consumption, low temp. app. (colder climate)	3571	kWh
·	Annual energy consumption, low temp. app. (warmer climate)	2110	kWh
Possibility to work only during off-peak hours  Yes	Sound power levels outdoors	61	dB
	Possibility to work only during off-peak hours	Yes	

IMPORTANT NOTICE - Please refer to the important notice on page 11 of this report.

Reseller:

Project: Anne Marie McCullagh

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## Disclaimer

## Atec 6

Anne Marie McCullagh, Dublin



This report is based upon data provided by the person who generated this report and a set of standard assumptions including but not limited to a "normal year" according to METEONORM. The results and recommendations assume the correct installation and use.

As the results and recommendations of this report including, without limitation, the calculated savings can vary according to the concrete circumstances these are only indicative and are given without any obligation and responsibility for Thermia Värmepumpar or any of its affiliates ("Thermia"). The calculated savings are not guaranteed or warranted by Thermia. Thermia accepts no responsibility for errors and omissions in the information and calculations.

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15/11/2016