

**System Summary**

**TT Tons Vspd and Vert 1 U-Tube - 1.00"**

ClimateMaster Unit	
Series:	Tranquility 27 - EarthPure
Total Capacity:	8 Tons
Style:	Two Stage - Var. Speed
Hot Water Generator:	No
Heating Run Time:	392 Hours
Cooling Run Time:	1,249 Hours
Heating Stage 1:	100 % of Htg
Cooling Stage 1:	98 % of Clg

Geothermal Source	
Source Type:	Vertical Closed Loop
Soil Type:	Damp Silt/Clay
Pipe Type:	1" IPS PE SDR 11
Pipe Configuration:	1 U-Tube in Bore
Avg Pipe Depth:	150 Feet
Bore Length:	2,460 Feet
Min Freeze Protect:	Deg F
Max Source-Cooling:	100 Deg F
Avg Source-Cooling:	81 Deg F
Avg Source-Heating:	67 Deg F
Min Source-Heating:	60 Deg F
Deep Earth Temp:	68 Deg F
Surface Swing:	21.0 Deg F
Swing Time Lag:	34 Days
Soil Conductivity:	0.75
Soil Diffusivity:	0.60
Loop Conductivity:	1.22

Auxiliary Heat	
Type:	Electric Resistance
Style:	Forced Air
Auxiliary Required:	0 Kw
Optional Emergency:	9 Kw
Efficiency:	100 %
Aux Balance Point:	N/A Deg F

Water Heater	
Type:	Electric Water Heater
Style:	Standard Efficiency
Efficiency:	100.0 %

Heating	
Tranquility 27 - EarthPure	
Electrical Use:	2,135 Kwh
Average Efficiency:	4.89 COP
Annual Contribution:	100 %
Annual Cost:	\$160
Electric Resistance	
Electrical Use:	0 Kwh
Average Efficiency:	0 %
Annual Contribution:	0 %
Annual Cost:	\$0
Annual Heating Cost:	\$160

Cooling	
Tranquility 27 - EarthPure	
Electrical Use:	5,892 Kwh
Average Efficiency:	15.8 EER
Annual Cooling Cost:	\$442

Water Heating	
Tranquility 27 - EarthPure	
Electrical Use:	0 Kwh
Average Efficiency:	0.00 COP
Annual Contribution:	0 %
Annual Cost:	\$0
Electric Water Heater	
Electrical Use:	4,833 Kwh
Average Efficiency:	100 %
Annual Contribution:	100 %
Annual Cost:	\$362
Annual Water Heating Cost:	\$362

Continuous Fan	
Electrical Use:	0 Kwh
Annual Continuous Fan Cost:	\$0

<b>Total Annual Operating Cost:</b>	<b>\$964</b>
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Due to the variability of weather, system installation, and living habits this analysis is to be considered an estimate.