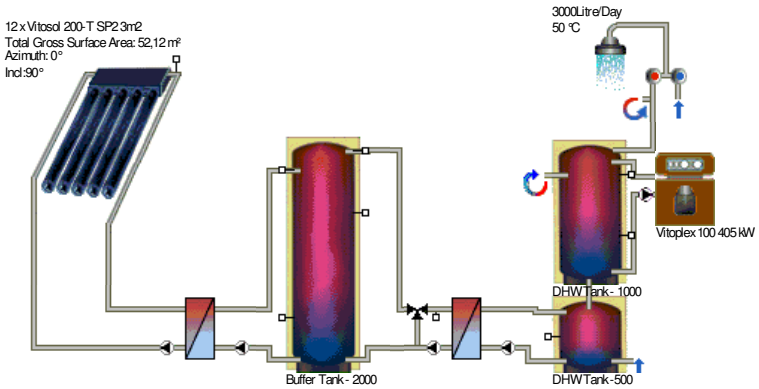


Results of Annual Simulation

Installed Collector Power:	36,48 kW	
Collector Surface Area Irradiation:	31,53 MWh	815,46 kWh/m²
Energy Produced by Collectors:	15,88 MWh	410,76 kWh/m²
Energy Produced by Collector Loop:	15,58 MWh	402,93 kWh/m²
DHW Heating Energy Supply:	51,03 MWh	
Solar Contribution to DHW:	15,72 MWh	
Energy from Auxiliary Heating:	41,97 MWh	

Fuel Oil Savings:	**2 228,3 l**
CO2 Emissions Avoided:	**5 929,19 kg**
DHW Solar Fraction:	**27,3 %**
Fractional Energy Savings (prEN 12976):	**20,9 %**
System Efficiency:	**49,9 %**

Basic Data

Climate File

Location:	Krakow
Weather Data Record:	"Krakow"
Global Radiation Annual Total:	1042,71 kWh
Latitude:	50,11 °
Longitude:	-20,26 °

Domestic Hot Water

Average Daily Consumption:	3000 l
Desired Temperature:	50 °C
Load Profile:	Multiple Dwelling (VDI 6002)
Cold Water Temperature:	February:8 °C / August:12 °C

System Components

Collector Loop

Manufacturer:	Viessmann
Type:	Vitosol 200-T SP2 3m2
Number:	12,00
Total Gross Surface Area:	52,116 m²
Total Active Solar Surface Area:	38,664 m²
Inclination (Tilt Angle):	90 °
Azimuth:	0 °

DHW Standby Tank

Manufacturer:	T*SOL Database
Type:	DHW Tank - 1000
Volume:	1000 l

Buffer Tank (B)

Manufacturer:	T*SOL Database
Type:	Buffer Tank - 2000
Volume:	2000 l

DHW Standby Tank (S)

Manufacturer:	T*SOL Database
Type:	DHW Tank -500

Original T*SOL Database

With Test Report

Solar Keymark

System Components

Volume:	500 l

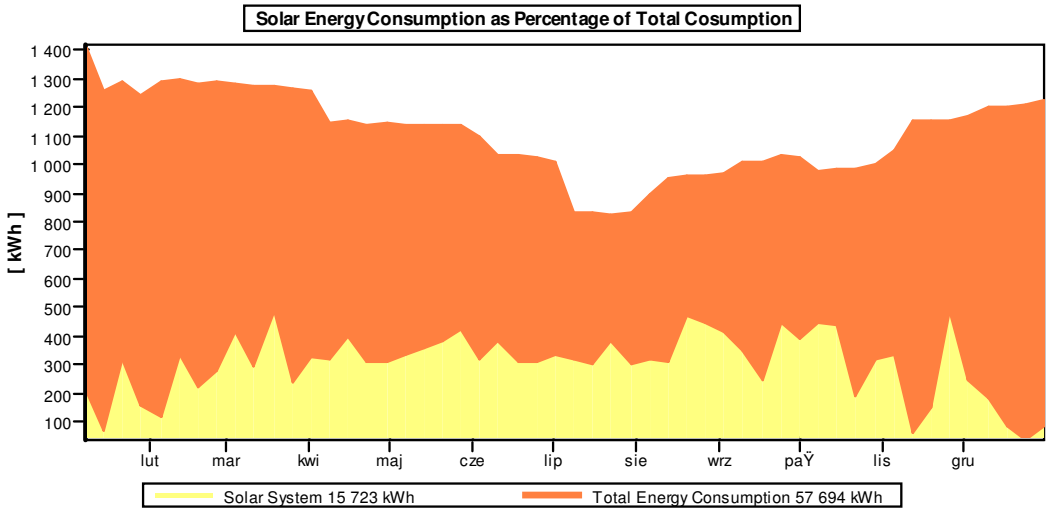
Auxiliary Heating

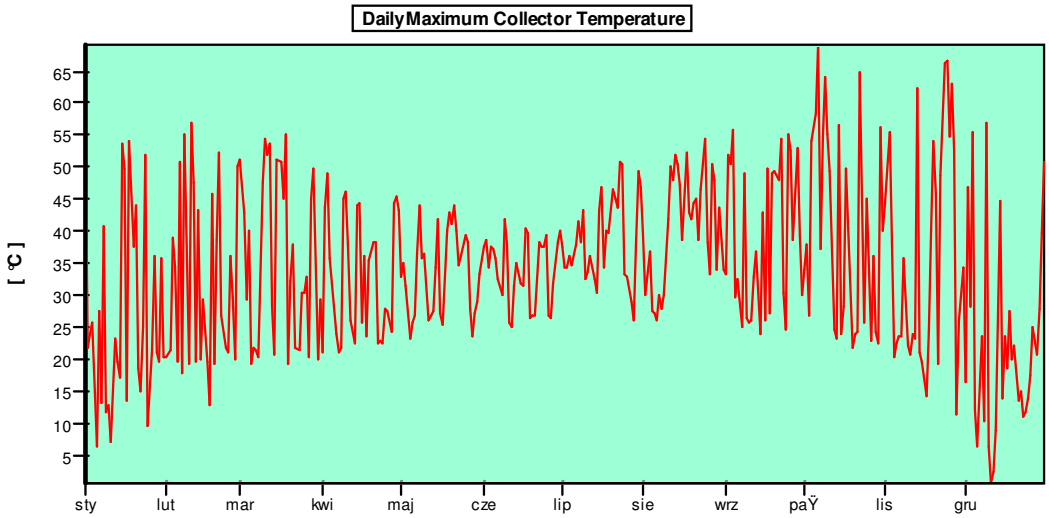
Manufacturer:	Viessmann
Type:	Vitoplex 100 405 kW
Nominal Output:	405 kW

Original T*SOL Database

With Test Report

Solar Keymark





These calculations were carried out by T*SOL Pro 4.4 - the Simulation Programme for Solar Thermal Heating Systems. The results are determined by a mathematical model calculation with variable time steps of up to 6 minutes. Actual yields can deviate from these values due to fluctuations in the weather, consumption and other factors.The Schematic System Diagram above does not represent and cannot replace a full technical drawing of the solar system.