

Results of Annual Simulation

Collector Surface Area Irradiation:	26,02 MWh	1 295,83 kWh/m ²
Energy Produced by Collectors:	12,35 MWh	615,12 kWh/m ²
Energy Produced by Collector Loop:	11,77 MWh	586,05 kWh/m ²
DHW Heating Energy Supply:	22,31 MWh	
Solar Contribution to DHW:	11,64 MWh	
Energy from Auxiliary Heating:	11,4 MWh	

Natural Gas Savings: 1 296,1 m³
CO₂ Emissions Avoided: 2940,41 kg

DHW Solar Fraction: 50,5 %
System Efficiency: 44,7 %

Project Data

Location:	Bratislava
Weather Data Record:	"Bratislava"
Global Radiation Annual Total:	1213,75 kWh
Latitude:	48,17 °



Basic Data

Domestic Hot Water

Average Daily Consumption:	1500 l
Desired Temperature:	45 °C
Load Profile:	Senior Citizens' Home
Cold Water Temperature:	8 °C 12 °C

System Components

Collector Loop

Manufacturer:	SCHÜCO International KG
Type:	  SchücoSol
Number:	8,00
Total Gross Surface Area:	21,6 m ²
Total Active Solar Surface Area:	20,08 m ²
Inclination (Tilt Angle):	45 °
Azimuth:	-40 °

DHW Standby Tank

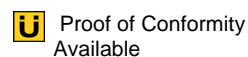
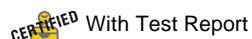
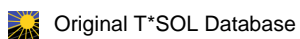
Manufacturer:	T*SOL Database
Type:	 DHW Tank - 400
Volume:	400 l

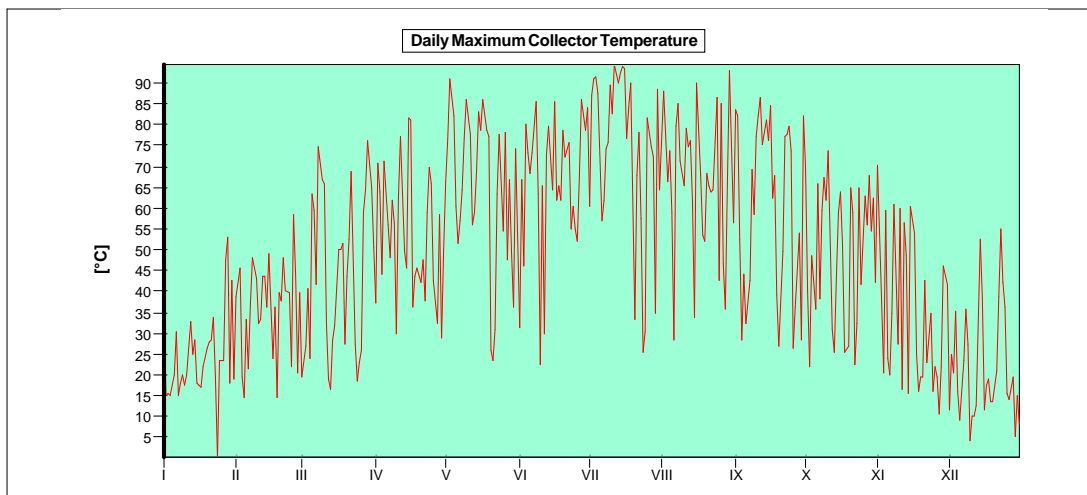
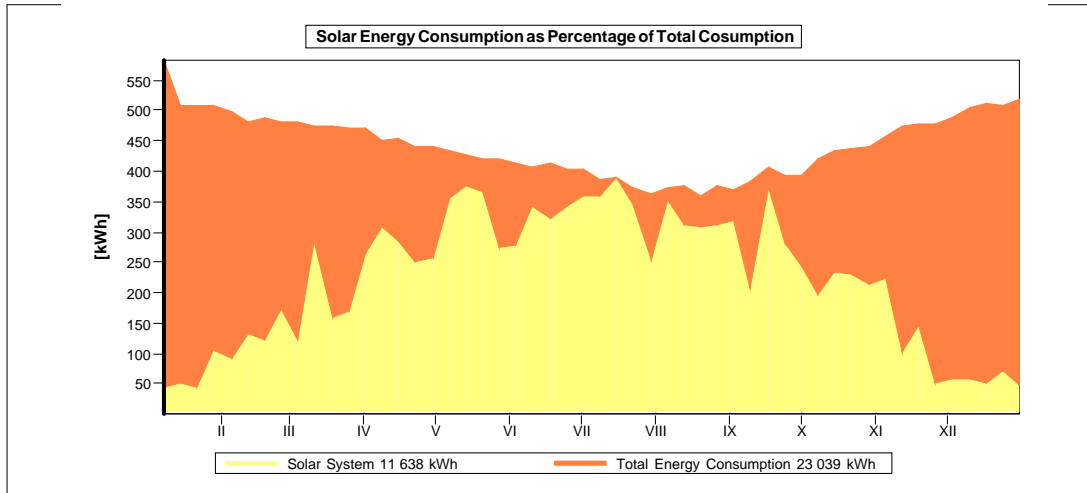
Solar Preheating Tank (S)

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

Auxiliary Heating

Manufacturer:	T*SOL Database
Type:	 Gas Condensing Boiler - 9
Output:	9 kW





These calculations were carried out by T*SOL Pro 4.3 - 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.