

Results of Annual Simulation

Installed Collector Power:	140,00 kW	
Installed Gross Solar Surface Area:	200 m ²	
Collector Surface Area Irradiation:	334,75 MWh	1.811,41 kWh/m ²
Energy Produced by Collectors:	199,31 MWh	1.078,54 kWh/m ²
Energy Produced by Collector Loop:	195,24 MWh	1.056,48 kWh/m ²

DHW Heating Energy Requirement:	510,74 MWh
DHW Heating Energy Supply:	477,52 MWh
Solar Contribution to DHW:	194,58 MWh
Energy from Auxiliary Heating:	286,07 MWh

Natural Gas (H) Savings:	33.951,6 m³
CO₂ Emissions Avoided:	71.795,35 kg
DHW Solar Fraction:	40,5 %
Fractional Energy Saving (EN 12976):	44,8 %
System Efficiency:	58,1 %

Basic Data

Climate File



Location: Split
Climate Data Record: "Split"
Total Annual Global Radiation: 1586,21 kWh
Latitude: 43,52 °
Longitude: -16,43 °

Domestic Hot Water

Average Daily Consumption: 30,63 m³
Desired Temperature: 50 °C
Load Profile: Hotel (Sommer-Peak)
Cold Water Temperature: February:8 °C / August:12 °C

System Components

Collector Loop

Manufacturer: Phönix SonnenWärme AG
Type:   K 323
Number: 80,00
Total Gross Surface Area: 200 m²
Total Active Solar Surface Area: 184,8 m²
Tilt Angle: 20 °
Azimuth: 0 °

DHW Standby Tank

Manufacturer: T*SOL Database
Type: DHW Tank -2500
Volume: 2500 l

Buffer Tank

Manufacturer: T*SOL Database
Type: 5 x Buffer Tank - 2000
Volume: 5 x 2000 l




DHW Standby Tank

Manufacturer: T*SOL Database
Type: 2 x DHW Tank -1000
Volume: 2 x 1000 l

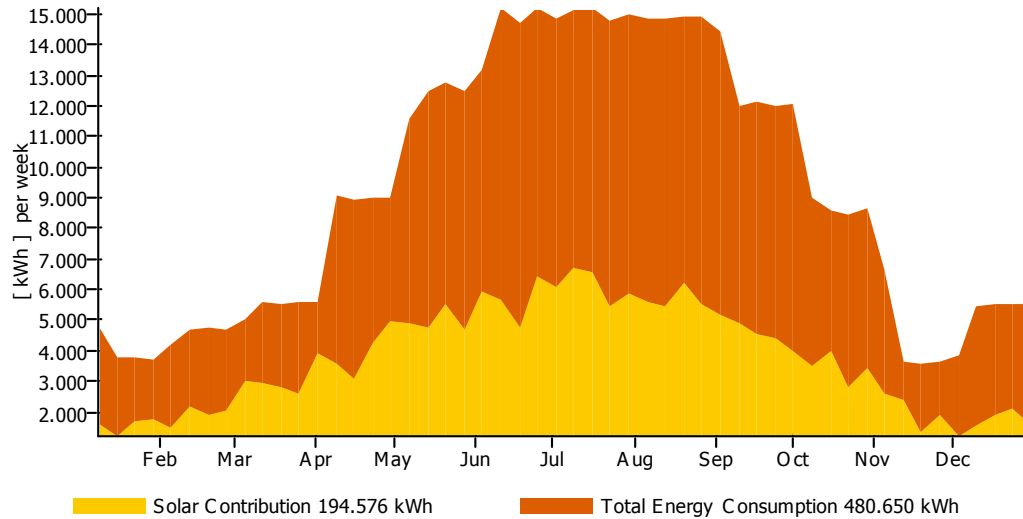
Auxiliary Heating

Manufacturer: T*SOL Database
Type:  Gas Boiler -120
Nominal Output: 120 kW

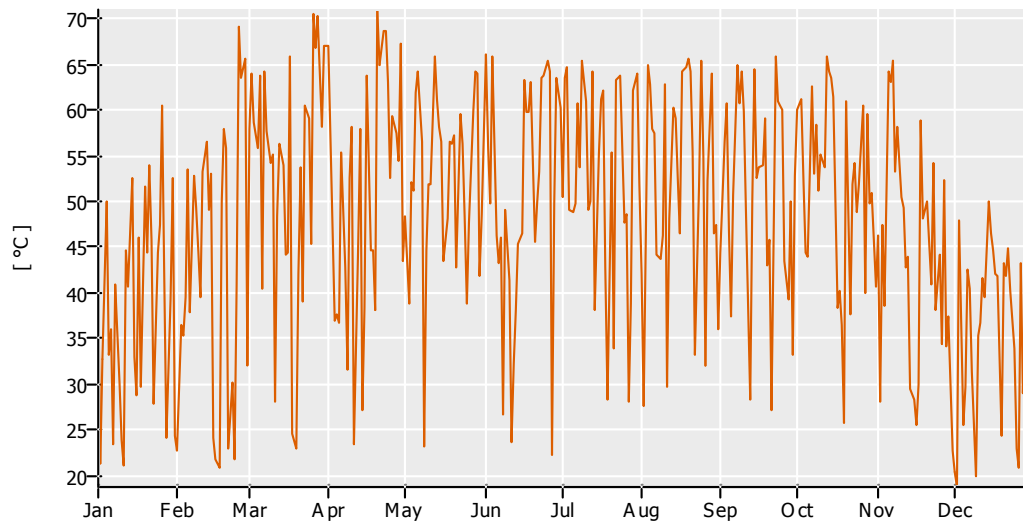
Legend

 Original T*SOL Database
 With Test Report
 Solar Keymark

Solar Energy Consumption as Percentage of Total Consumption



Daily Maximum Collector Temperature



These calculations were carried out by T*SOL Pro 4.5 - 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 climate, consumption and other factors. The system schematic diagram above does not represent and cannot replace a full technical drawing of the solar system.