

RAPORT EFICIENTA SOLARA

SOLAR HT 45-300

SELECTIVE SYSTEM 300 + LUNA HT 1.450

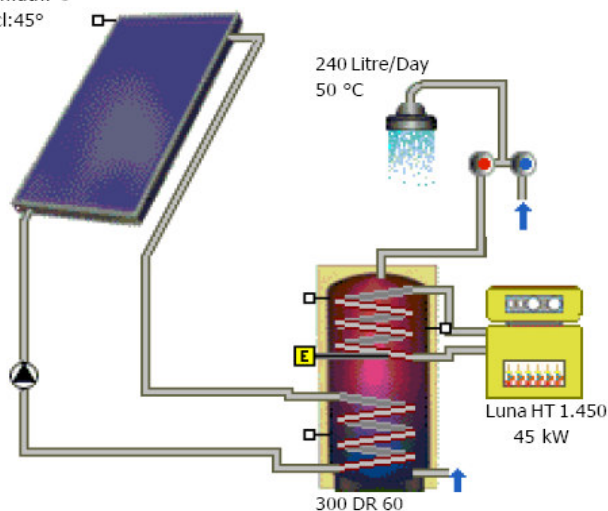
SOLAR SP3 + PREMIUM HT 45-300

3 x SB21

Total Gross Surface Area: 6.08 m²

Azimuth: 0°

Incl:45°



Basic Data

Climate File

Location: Bucuresti
Climate Data Record: "Bucuresti"
Total Annual Global Radiation: 1324.32 kWh
Latitude: 44.5 °
Longitude: -26.22 °

Domestic Hot Water

Average Daily Consumption: 240 l
Desired Temperature: 50 °C
Load Profile: Detached House (evening max)
Cold Water Temperature: February:8 °C / August:12 °C

System Components

Collector Loop

Manufacturer: Baxi
Type: SB21
Number: 3.00
Total Gross Surface Area: 6.075 m²
Total Active Solar Surface Area: 5.52 m²
Tilt Angle: 45 °
Azimuth: 0 °

Bivalent (Twin Coil) DHW Tank incl. Heating Element (6 kW)

Manufacturer: Baxi
Type: 300 DR 60
Volume: 300 l

Auxiliary Heating

Manufacturer: Baxi
Type: Luna HT 1.450
Nominal Output: 45 kW

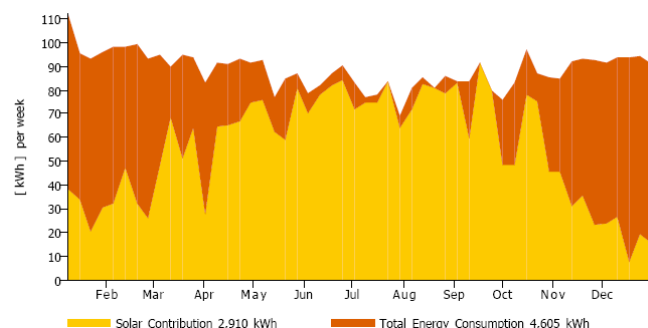
Results of Annual Simulation

Installed Collector Power:	4.25 kW	
Installed Gross Solar Surface Area:	6.075 m ²	
Collector Surface Area Irradiation:	7.95 MWh	1,440.12 kWh/m ²
Energy Produced by Collectors:	3.34 MWh	605.67 kWh/m ²
Energy Produced by Collector Loop:	2,910.23 kWh	527.22 kWh/m ²

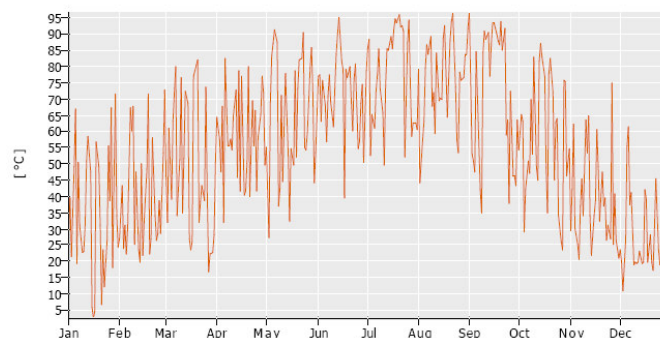
DHW Heating Energy Supply:	4.08 MWh
Solar Contribution to DHW:	2910.23 kWh
Energy from Auxiliary Heating:	1694.28 kWh

Natural Gas (H) Savings:	344.9 m ³
CO2 Emissions Avoided:	729.79 kg
DHW Solar Fraction:	63.2 %
Fractional Energy Savings (EN 12976):	63.5 %
System Efficiency:	36.6 %

Solar Energy Consumption as Percentage of Total Consumption



Daily Maximum Collector Temperature



Aceste calcule au fost efectuate cu ajutorul programului T-SOL Pro 4.5 - software de simulare pentru sisteme termice de încălzire ce folosesc energia solara. Rezultatele sunt determinate in baza unui model matematic de calcul. Randamentul real se poate abate de la aceste valori, datorita fluctuatilor climatice, modului de exploatare sau altori factori externi. Schema de mai sus nu reprezinta si nu poate înlocui un proiect tehnic de executie al sistemului solar.