

15°

10°

2758.83 kWh

87.09 kWh

-3.86 %

1003.02 kWh/m²

Performance of grid-connected PV

PVGIS-5 estimates of solar electricity generation:

Provided inputs:

Latitude/Longitude:
Horizon: Calculated
Database used:PVGIS-SARAH2

PV technology:Crystalline silicon

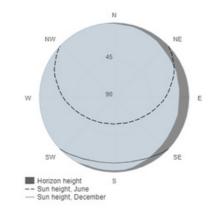
PV installed:3.5 kWp System loss:14 %

Simulation outputs

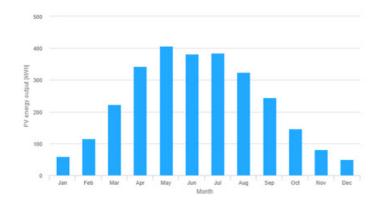
Slope angle:
Azimuth angle:
Yearly PV energy production:
Yearly in-plane irradiation:
Year-to-year variability:
Changes in output due to:
Angle of incidence:

Spectral effects: 1.76 %
Temperature and low irradiance: -6.6 %
Total loss: -21.41 %

Outline of horizon at chosen location:



Monthly energy output from fix-angle PV system:



Monthly in-plane irradiation for fixed-angle:



Monthly PV energy and solar irradiation

Month	E_m	H(i)_m SD_
January	59.5	21.9 8.9
February	116.0	41.1 20.8
March	222.2	78.0 25.1
April	343.1	122.5 46.0
May	405.9	147.0 39.9
June	380.9	140.9 40.6
July	384.0	143.1 52.8
August	324.7	118.8 30.6
September	244.6	88.7 24.9
October	146.4	52.5 21.3
November	81.3	29.6 11.1
December	50.2	18.9 7.1

E_m: Average monthly electricity production from the defined system [kWh].

 $H(i)_m$: Average monthly sum of global irradiation per square meter received by the modules of the given system [kWh/m²].

SD m: Standard deviation of the monthly electricity production due to year-to-year variation [kWh].

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Report generated on 2022/12/14



15°

10°

11823.58 kWh

373.26 kWh

1003.02 kWh/m²

Performance of grid-connected PV

PVGIS-5 estimates of solar electricity generation:

Provided inputs:

Latitude/Longitude:
Horizon: Calculated

Database used:PVGIS-SARAH2 PV technology:Crystalline silicon

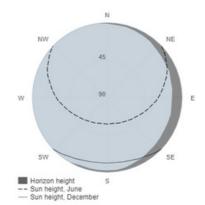
PV installed:15 kWp System loss:14 %

Simulation outputs

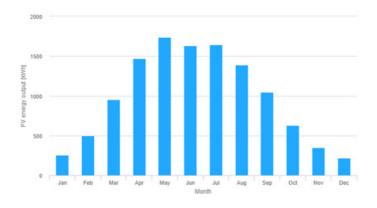
Slope angle:
Azimuth angle:
Yearly PV energy production:
Yearly in-plane irradiation:
Year-to-year variability:
Changes in output due to:

Angle of incidence: -3.86 %
Spectral effects: 1.76 %
Temperature and low irradiance: -6.6 %
Total loss: -21.41 %

Outline of horizon at chosen location:



Monthly energy output from fix-angle PV system:



Monthly in-plane irradiation for fixed-angle:



Monthly PV energy and solar irradiation

Month	E_m H(i)_m SD_m
January	255.1 21.9 38.3
February	497.3 41.1 89.0
March	952.3 78.0 107.7
April	1470.3 122.5 197.1
May	1739.8 147.0 171.0
June	1632.5 140.9 173.8
July	1645.6 143.1 226.4
August	1391.4 118.8 131.3
September	1048.2 88.7 106.9
October	627.5 52.5 91.0
November	348.5 29.6 47.5
December	215.2 18.9 30.6

E_m: Average monthly electricity production from the defined system [kWh].

 $H(i)_m$: Average monthly sum of global irradiation per square meter received by the modules of the given system [kWh/m²].

SD m: Standard deviation of the monthly electricity production due to year-to-year variation [kWh].

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