

# Performance of grid-connected PV

## PVGIS-5 estimates of solar electricity generation:

#### **Provided inputs:**

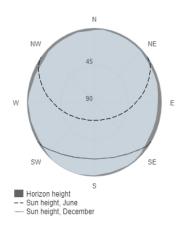
Latitude/Longitude:	45.104,24.379
Horizon:	Calculated
Database used:	PVGIS-SARAH2
PV technology:	Crystalline silicon
PV installed:	63 kWp
System loss:	14 %

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: Temperature and low irradiance: Total loss:

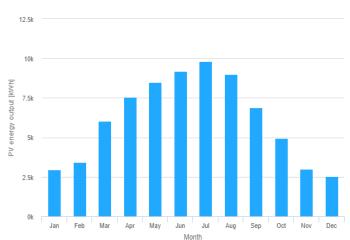
# 10 ° 0 ° 73857.54 kWh 1506.41 kWh/m<sup>2</sup> 2968.32 kWh -3.34 % 1.05 % -7.35 % -22.18 %

Monthly in-plane irradiation for fixed-angle:

## Outline of horizon at chosen location:



## Monthly energy output from fix-angle PV system:



### Monthly PV energy and solar irradiation

Month	E_m	H(i)_m	SD_m
January	2966.3	56.7	518.6
February	3431.5	65.3	733.6
March	6034.7	117.0	897.6
April	7572.3	151.9	871.5
May	8479.6	174.8	606.4
June	9184.0	192.7	603.0
July	9832.3	208.7	606.5
August	8979.9	189.7	703.5
September	6897.7	141.8	496.9
October	4962.8	99.3	871.6
November	2981.2	58.8	488.1
December	2535.4	49.7	643.2

E\_m: Average monthly electricity production from the defined system [kWh].

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

0

250

200 I/m2]

150 diation 100

I [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].

in files or formats that are such problems. The Com

For more information, please visit https://ec.europa.eu/info/legal-notice er

PVGIS ©European Union, 2001-2023. Reproduction is authorised, provided the source is acknowledged, save where otherwise stated

Month

Report generated on 2023/03/20