

## Performance of Grid-connected PV

### PVGIS estimates of solar electricity generation

Location: 42°12'16" North, 23°4'3" East, Elevation: 446 m a.s.l.,

Nominal power of the PV system: 1.0 kW (crystalline silicon)

Estimated losses due to temperature: 9.3% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 2.8%

Other losses (cables, inverter etc.): 10.0%

Combined PV system losses: 20.7%

Fixed system: inclination=34 deg., orientation=-2 deg.				
Month	Ed	Em	Hd	Hm
Jan	1.66	51.5	1.98	61.3
Feb	2.25	62.9	2.63	73.6
Mar	2.85	88.3	3.43	106
Apr	3.59	108	4.46	134
May	3.78	117	4.84	150
Jun	4.02	121	5.29	159
Jul	4.21	131	5.54	172
Aug	4.18	130	5.57	173
Sep	3.72	112	4.81	144
Oct	2.78	86.1	3.45	107
Nov	1.77	53.0	2.12	63.6
Dec	1.19	36.8	1.38	42.9
Year	3.00	91.3	3.80	115
Total for year		1100		1390

Ed: Average daily electricity production from the given system (kWh)

Em: Average monthly electricity production from the given system (kWh)

Hd: Average daily sum of global irradiation per square meter received by the modules of the given system (kWh/m<sup>2</sup>)

Hm: Average sum of global irradiation per square meter received by the modules of the given system (kWh/m<sup>2</sup>)

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