

## 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: 9.0% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 2.6%

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

Combined PV system losses: 20.2%

Fixed system: inclination=34 deg., orientation=-2 deg.				
Month	Ed	Em	Hd	Hm
Jan	2.01	62.3	2.38	73.7
Feb	2.86	80.1	3.33	93.2
Mar	3.95	122	4.73	147
Apr	4.33	130	5.35	161
May	4.67	145	5.95	184
Jun	4.88	147	6.40	192
Jul	5.18	161	6.77	210
Aug	4.97	154	6.59	204
Sep	3.97	119	5.13	154
Oct	3.53	110	4.37	135
Nov	2.46	73.9	2.93	88.0
Dec	1.60	49.6	1.85	57.4
Year	3.71	113	4.66	142
Total for year		1350		1700

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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