

## Performance of Grid-connected PV

### PVGIS estimates of solar electricity generation

Location: 47°29'52" North, 19°2'24" East, Elevation: 150 m a.s.l.,  
Solar radiation database used: PVGIS-CMSAF

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

Estimated losses due to temperature and low irradiance: 8.1% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 2.9%

Other losses (cables, inverter etc.): 14.0%

Combined PV system losses: 23.3%

Fixed system: inclination=55 deg., orientation=0 deg.				
Month	Ed	Em	Hd	Hm
Jan	1.45	44.9	1.71	53.1
Feb	2.34	65.5	2.82	79.1
Mar	3.16	97.8	3.97	123
Apr	3.77	113	4.93	148
May	3.78	117	5.11	159
Jun	3.60	108	4.93	148
Jul	3.66	114	5.06	157
Aug	3.72	115	5.08	158
Sep	3.25	97.5	4.29	129
Oct	2.75	85.1	3.50	108
Nov	1.75	52.6	2.15	64.6
Dec	1.28	39.8	1.52	47.0
Year	2.88	87.6	3.76	114
Total for year		1050		1370

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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