

Performance of Grid-connected PV

PVGIS estimates of solar electricity generation 1123 Budapest, XII., Alkotás utca 44.

Location: 47°29'30" North, 19°1'29" East, Elevation: 143 m a.s.l.,

Solar radiation database used: PVGIS-CMSAF

Nominal power of the PV system: 50.0 kW (crystalline silicon)

Estimated losses due to temperature and low irradiance: 8.5% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 3.3%

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

Combined PV system losses: 23.9%

Fixed system: Inclination=15 deg., orientation=-5 deg.				
Month	Ed	Em	Hd	Hm
Jan	50.10	1550	1.21	37.6
Feb	86.80	2430	2.10	58.7
Mar	145.00	4500	3.65	113
Apr	195.00	5840	5.07	152
May	213.00	6610	5.72	177
Jun	215.00	6460	5.88	176
Jul	219.00	6790	6.06	188
Aug	202.00	6250	5.51	171
Sep	153.00	4590	4.04	121
Oct	115.00	3570	2.93	90.7
Nov	60.00	1800	1.49	44.8
Dec	38.10	1180	0.93	28.8
Year	141.00	4300	3.73	113
Total for year		51600		1360

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/m²)

Hm: Average sum of global irradiation per square meter received by the modules of the given system (kWh/m²)

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<http://re.jrc.ec.europa.eu/pvgis/>

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