

Performance of Grid-connected PV

PVGIS estimates of solar electricity generation

Location: 46°52'47" North, 21°1'40" East, Elevation: 83 m a.s.l.,
 Solar radiation database used: PVGIS-CMSAF

Nominal power of the PV system: 12.5 kW (crystalline silicon)
 Estimated losses due to temperature and low irradiance: 14.1% (using local ambient temperature)
 Estimated loss due to angular reflectance effects: 2.8%
 Other losses (cables, inverter etc.): 14.0%
 Combined PV system losses: 28.2%

| Fixed system: inclination=40 deg., orientation=28 deg. | | | | |
|---|-------|-------|------|------|
| Month | Ed | Em | Hd | Hm |
| Jan | 14.40 | 447 | 1.45 | 44.9 |
| Feb | 22.70 | 636 | 2.32 | 65.1 |
| Mar | 39.00 | 1210 | 4.22 | 131 |
| Apr | 48.40 | 1450 | 5.42 | 163 |
| May | 49.50 | 1530 | 5.67 | 176 |
| Jun | 51.00 | 1530 | 5.94 | 178 |
| Jul | 51.40 | 1590 | 6.06 | 188 |
| Aug | 50.70 | 1570 | 5.94 | 184 |
| Sep | 41.20 | 1240 | 4.66 | 140 |
| Oct | 34.20 | 1060 | 3.69 | 114 |
| Nov | 21.50 | 646 | 2.24 | 67.2 |
| Dec | 11.70 | 362 | 1.17 | 36.2 |
| Year | 36.40 | 1110 | 4.07 | 124 |
| Total for year | | 13300 | | 1490 |

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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