

## Performance of Grid-connected PV

### PVGIS estimates of solar electricity generation

Location: 45°18'10" North, 3°0'59" East, Elevation: 1195 m a.s.l.,

Nominal power of the PV system: 9.4 kW (crystalline silicon)

Estimated losses due to temperature: 12.4% (using local ambient temperature)

Estimated loss due to angular reflectance effects: 2.8%

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

Combined PV system losses: 26.7%

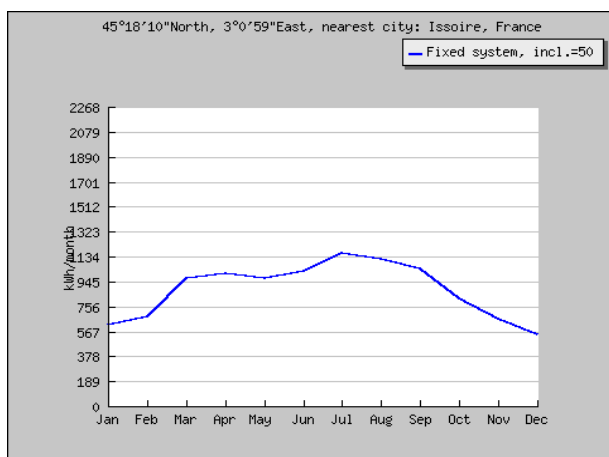
Fixed system: inclination=50 deg., orientation=0 deg.				
Month	Ed	Em	Hd	Hm
Jan	19.90	617	2.70	83.7
Feb	24.30	680	3.34	93.5
Mar	31.20	968	4.44	138
Apr	33.60	1010	4.85	146
May	31.40	974	4.62	143
Jun	34.20	1030	5.15	154
Jul	37.40	1160	5.64	175
Aug	36.10	1120	5.47	169
Sep	34.90	1050	5.16	155
Oct	26.30	816	3.78	117
Nov	22.00	659	3.05	91.4
Dec	17.70	548	2.41	74.7
Year	29.10	885	4.22	128
Total for year		10600		1540

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

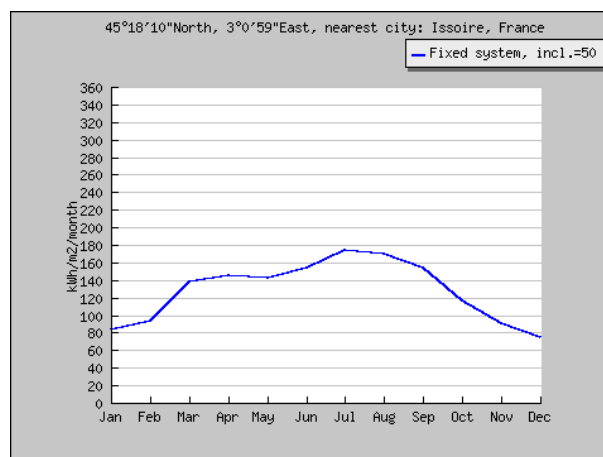
Em: Average monthly electricity production from the given system (kWh)

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

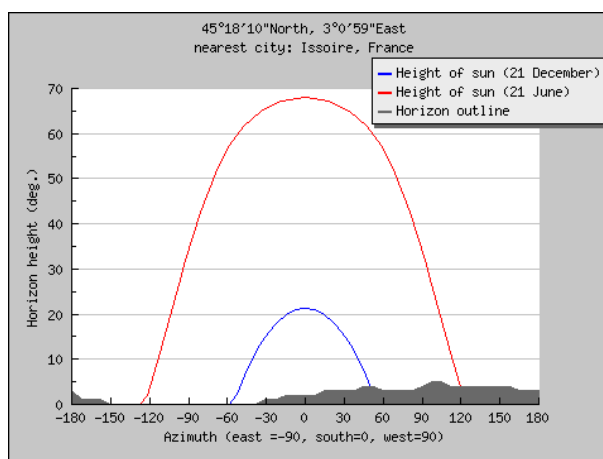
Hm: Average sum of global irradiation per square meter received by the modules of the given system (kWh/m<sup>2</sup>)



Monthly energy output from fixed-angle PV system



Monthly in-plane irradiation for fixed angle



Outline of horizon with sun path for winter and summer solstice

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