

LONG-TERM MONTHLY AVERAGES OF SOLAR RADIATION AND AIR TEMPERATURE

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Site info

Site name: Zhangye
 Gansu, People's Republic of China

Coordinates: **38° 49' 6.82" N, 100° 12' 30.09" E**
 Elevation a.s.l.: 1682 m
 Slope inclination: 1°
 Slope azimuth: 314° northwest

Location on the map: <http://solargis.info/imaps/#tl=Google:satellite=38.818562,100.208359=14>

Geographic position



Google Maps © 2015 Google

Climate data

| Month | Gh _d | Gh _m | Dh _d | Dh _m | Dn _d | Dn _m | T ₂₄ |
|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Jan | 2.53 | 78 | 1.04 | 32 | 3.82 | 118 | -9.7 |
| Feb | 3.60 | 101 | 1.40 | 39 | 4.63 | 130 | -6.1 |
| Mar | 4.61 | 143 | 2.13 | 66 | 4.19 | 130 | -0.1 |
| Apr | 5.62 | 169 | 2.68 | 80 | 4.28 | 128 | 7.1 |
| May | 5.92 | 184 | 3.02 | 94 | 3.89 | 121 | 13.5 |
| Jun | 6.00 | 180 | 3.27 | 98 | 3.58 | 107 | 18.5 |
| Jul | 5.72 | 177 | 3.03 | 94 | 3.55 | 110 | 20.6 |
| Aug | 5.32 | 165 | 2.67 | 83 | 3.72 | 115 | 19.0 |
| Sep | 4.36 | 131 | 2.15 | 65 | 3.54 | 106 | 13.5 |
| Oct | 3.80 | 118 | 1.73 | 54 | 3.96 | 123 | 5.8 |
| Nov | 2.90 | 87 | 1.27 | 38 | 3.90 | 117 | -1.4 |
| Dec | 2.32 | 72 | 0.95 | 29 | 3.74 | 116 | -7.0 |
| Year | 4.40 | 1605 | 2.12 | 772 | 3.89 | 1421 | 6.2 |

Long-term averages:

- Gh_d Daily sum of global horizontal irradiation (kWh/m²)
- Gh_m Monthly sum (annual) of global horizontal irradiation (kWh/m²)
- Dh_d Daily sum of diffuse horizontal irradiation (kWh/m²)
- Dh_m Monthly sum (annual) of diffuse horizontal irradiation (kWh/m²)
- Dn_d Daily sum of direct normal irradiation (kWh/m²)
- Dn_m Monthly sum (annual) of direct normal irradiation (kWh/m²)
- T₂₄ Daily (diurnal) air temperature (°C)

Site: Zhangye, People's Republic of China, lat/lon: 38.818562°/100.208359°

SolarGIS - description of the database

SolarGIS is high-resolution climate database operated by GeoModel Solar. Primary data layers include solar radiation, air temperature and terrain (elevation, horizon).

Air temperature at 2 m: developed from the CFSR data (© NOAA NCEP, USA); years: 1994 - 2011; recalculated to 15-minute values. The data are spatially enhanced to 1 km resolution to reflect variability induced by high resolution terrain.

Solar radiation: calculated from the satellite and atmospheric data:

- Meteosat PRIME satellite (© EUMETSAT, Germany) 1994 - 2010, 15-minute or 30-minute values for Europe, Africa and Middle East,
- Meteosat IODC satellite (© EUMETSAT, Germany) 1999 - 2011, 30-minute values for Asia,
- GOES EAST satellite (© NOAA, USA) 1999 - 2014, 30-minute, partially 3-hourly values for Americas,
- MTSAT satellite (© JMA, Japan) 2007 - 2014, 30-minute values for Pacific,
- MACC-II (© ECMWF, UK) 2003 - 2014, atmospheric data,
- GFS, CFSR (© NOAA, USA), 1994 - 2014, atmospheric data.

This estimation assumes a year having 365 days. More information about the data and underlying uncertainty can be found at: <http://solargis.info/doc/116>.

Service provider

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Disclaimer and legal information

Considering the nature of climate fluctuations, interannual and long-term changes, as well as the uncertainty of measurements and calculations, GeoModel Solar cannot take full guarantee of the accuracy of estimates. The maximum possible has been done for the assessment of climate conditions based on the best available data, software and knowledge. GeoModel Solar shall not be liable for any direct, incidental, consequential, indirect or punitive damages arising or alleged to have arisen out of use of the provided report.

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