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[Accuracy](#)

[Methodology](#)

[Parameters \(Units & Definition\)](#)



NASA Surface meteorology and Solar Energy - Choices



Latitude **-25** / Longitude **136** was chosen.

Select parameters and press Submit
(Default is ALL types)

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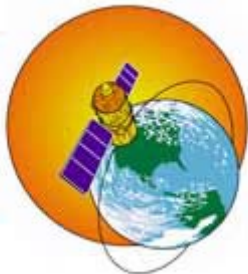
Geometry	Latitude and longitude (center and boundaries)
Parameters for Solar Cooking	<ul style="list-style-type: none"> Average insolation Midday insolation Clear sky insolation Clear sky days
Parameters for Sizing and Pointing of Solar Panels and for Solar Thermal Applications	<ul style="list-style-type: none"> Insolation on horizontal surface (Average, Min, Max) Diffuse radiation on horizontal surface (Average, Min, Max) Direct normal radiation (Average, Min, Max) Insolation at 3-hourly intervals Insolation clearness index, K (Average, Min, Max) Insolation normalized clearness index Clear sky insolation Clear sky insolation clearness index Clear sky insolation normalized clearness index Downward Longwave Radiative Flux
Solar Geometry	<ul style="list-style-type: none"> Solar Noon Daylight Hours Daylight average of hourly cosine solar zenith angles Cosine solar zenith angle at mid-time between sunrise and solar noon Declination Sunset Hour Angle Maximum solar angle relative to the horizon Hourly solar angles relative to the horizon Hourly solar azimuth angles
Parameters for Tilted Solar Panels	<ul style="list-style-type: none"> Radiation on equator-pointed tilted surfaces Minimum radiation for equator-pointed tilted surfaces Maximum radiation for equator-pointed tilted surfaces
Parameters for Sizing Battery or other Energy-storage Systems	<ul style="list-style-type: none"> Minimum available insolation as % of average values over consecutive-day period Horizontal surface deficits below expected values over consecutive-day period Equivalent number of NO-SUN days over consecutive-day period
Parameters for Sizing Surplus-product Storage Systems	<ul style="list-style-type: none"> Available surplus as % of average values over consecutive-day period
Diurnal Cloud Information	<ul style="list-style-type: none"> Daylight cloud amount Cloud amount at 3-hourly intervals Frequency of cloud amount at 3-hourly intervals

Meteorology (Temperature)	Air Temperature at 10 m Daily Temperature Range at 10 m Cooling Degree Days above 18° C Heating Degree Days below 18° C Arctic Heating Degree Days below 10° C Arctic Heating Degree Days below 0° C Earth Skin Temperature Daily Mean Earth Temperature (Min, Max, Amplitude) Frost Days Dew/Frost Point Temperature at 10 m
Meteorology (Wind)	Wind Speed at 50 m (Average, Min, Max) Percent of time for ranges of Wind Speed at 50 m Wind Speed at 50 m for 3-hourly intervals Wind Direction at 50 m Wind Direction at 50 m for 3-hourly intervals Wind Speed at 10 m for terrain similar to airports
Meteorology (Wind): be sure to select an appropriate VEGETATION type 1) Percent difference for Wind Speed at 10 m from average Wind Speed at 50 m 2) Gipe Power Law used to adjust Wind Speed at 50 m to other heights 3) Wind Speed at 50, 100, 150, and 300 m 4) Wind Speed for several vegetation and surface types VEGETATION "Airport": flat rough grass HEIGHT <input type="text" value="100"/> <i>Minimum/Maximum heights are 10 and 300</i> Choose a vegetation for 1, 2 and 3. Choose a height for 2 and 4.	
Meteorology (Other)	Relative Humidity Humidity Ratio Atmospheric Pressure Total Column Precipitable Water Precipitation
Supporting Information	Top-of-atmosphere insolation Surface Albedo

Select parameters and press Submit
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