

## Belgium

📍 Area: 30280 km<sup>2</sup>

🕒 Report generated: 23 Jan 2020, 00:35

### AREA INFO

Map data (min-max range)				Per day
Specific photovoltaic power output	PVOUT	2.80 — 3.05	kWh/kWp	
Direct normal irradiation	DNI	2.42 — 2.75	kWh/m <sup>2</sup>	
Global horizontal irradiation	GHI	2.85 — 3.05	kWh/m <sup>2</sup>	
Diffuse horizontal irradiation	DIF	1.54 — 1.60	kWh/m <sup>2</sup>	
Global tilted irradiation at optimum angle	GTI	3.31 — 3.61	kWh/m <sup>2</sup>	
Optimum tilt of PV modules	OPTA	35 — 38	°	
Air temperature	TEMP	7.9 — 11.3	°C	
Terrain elevation	ELE	-4 — 694	m	

### Map



# GLOBAL SOLAR ATLAS

BY WORLD BANK GROUP

## PVOUT - AREA ANALYSIS

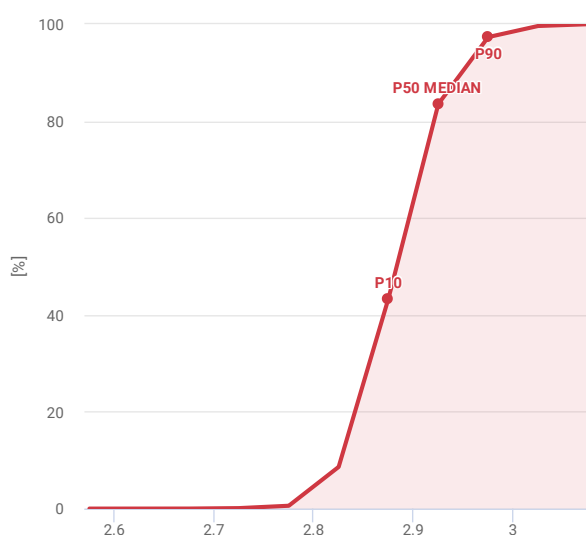
### Statistics

Specific photovoltaic power output

Average	2.91 kWh/kWp
Maximum	3.05 kWh/kWp
Percentile 90	2.96 kWh/kWp
Percentile 75	2.94 kWh/kWp
Percentile 50 (Median)	2.91 kWh/kWp
Percentile 25	2.88 kWh/kWp
Percentile 10	2.85 kWh/kWp
Minimum	2.80 kWh/kWp

### Cumulative distribution function

Specific photovoltaic power output



### Distribution

Specific photovoltaic power output

less than 3.00	97.3 %	<div style="width: 97.3%;"></div>
more than 3.00	2.7 %	<div style="width: 2.7%;"></div>
	100.0 %	

## DNI - AREA ANALYSIS

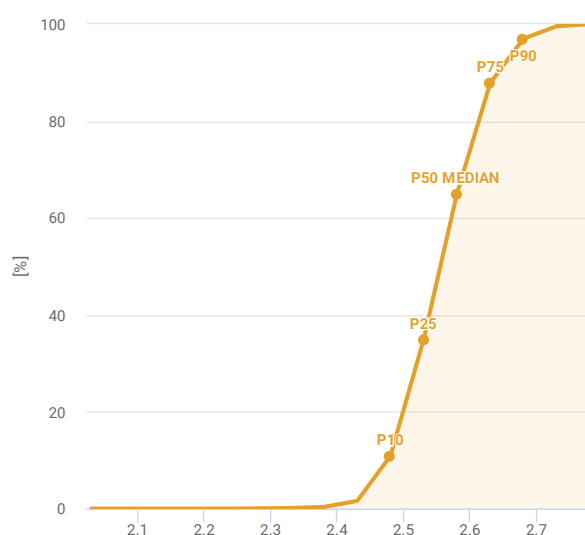
### Statistics

Direct normal irradiation

Average	2.58 kWh/m <sup>2</sup>
Maximum	2.75 kWh/m <sup>2</sup>
Percentile 90	2.66 kWh/m <sup>2</sup>
Percentile 75	2.62 kWh/m <sup>2</sup>
Percentile 50 (Median)	2.58 kWh/m <sup>2</sup>
Percentile 25	2.53 kWh/m <sup>2</sup>
Percentile 10	2.50 kWh/m <sup>2</sup>
Minimum	2.42 kWh/m <sup>2</sup>

### Cumulative distribution function

Direct normal irradiation



### Distribution

Direct normal irradiation

less than 2.60	65.0 %	<div style="width: 65.0%;"></div>
more than 2.60	35.0 %	<div style="width: 35.0%;"></div>
	100.0 %	

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## GHI - AREA ANALYSIS

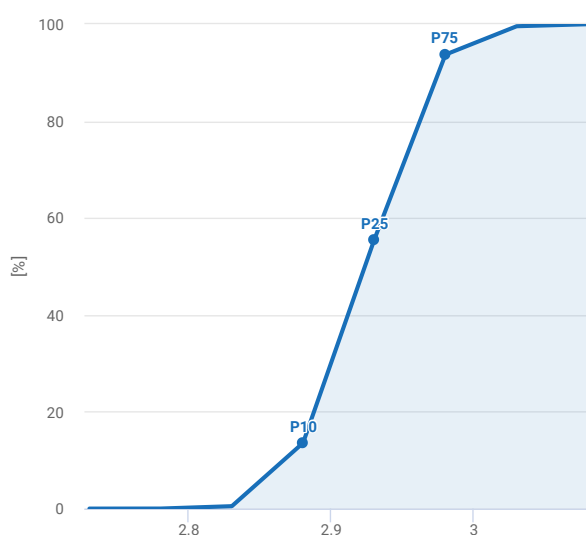
### Statistics

Global horizontal irradiation

Average	<b>2.94</b> kWh/m <sup>2</sup>
Maximum	<b>3.05</b> kWh/m <sup>2</sup>
Percentile 90	<b>2.99</b> kWh/m <sup>2</sup>
Percentile 75	<b>2.97</b> kWh/m <sup>2</sup>
Percentile 50 (Median)	<b>2.95</b> kWh/m <sup>2</sup>
Percentile 25	<b>2.92</b> kWh/m <sup>2</sup>
Percentile 10	<b>2.89</b> kWh/m <sup>2</sup>
Minimum	<b>2.85</b> kWh/m <sup>2</sup>

### Cumulative distribution function

Global horizontal irradiation



### Distribution

Global horizontal irradiation

less than 3.00	<b>93.7</b> %	<div style="width: 93.7%;"></div>
more than 3.00	<b>6.3</b> %	<div style="width: 6.3%;"></div>
	<b>100.0</b> %	

## DIF - AREA ANALYSIS

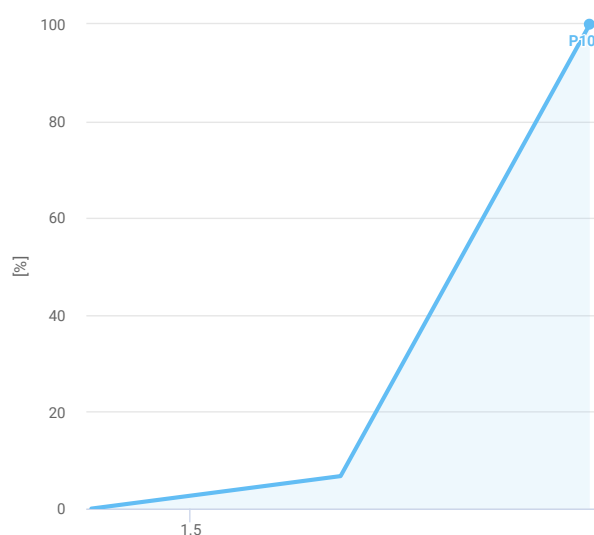
### Statistics

Diffuse horizontal irradiation

Average	<b>1.57</b> kWh/m <sup>2</sup>
Maximum	<b>1.60</b> kWh/m <sup>2</sup>
Percentile 90	<b>1.59</b> kWh/m <sup>2</sup>
Percentile 75	<b>1.59</b> kWh/m <sup>2</sup>
Percentile 50 (Median)	<b>1.58</b> kWh/m <sup>2</sup>
Percentile 25	<b>1.57</b> kWh/m <sup>2</sup>
Percentile 10	<b>1.55</b> kWh/m <sup>2</sup>
Minimum	<b>1.54</b> kWh/m <sup>2</sup>

### Cumulative distribution function

Diffuse horizontal irradiation



### Distribution

Diffuse horizontal irradiation

less than 1.60	<b>100.0</b> %	<div style="width: 100%;"></div>
	<b>100.0</b> %	

## GTI - AREA ANALYSIS

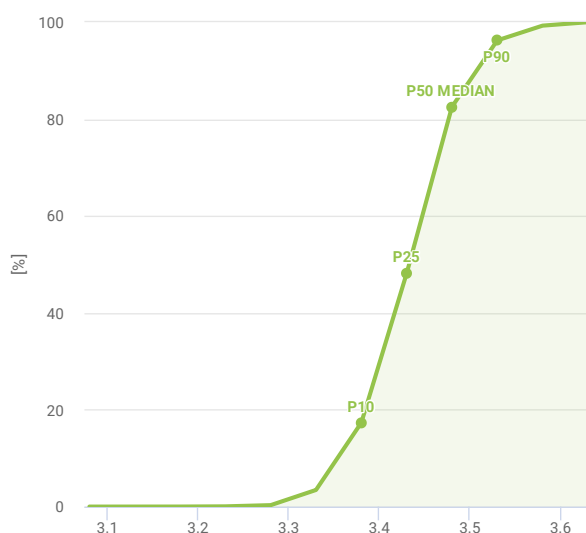
### Statistics

Global tilted irradiation at optimum angle

Average	<b>3.45</b> kWh/m <sup>2</sup>
Maximum	<b>3.61</b> kWh/m <sup>2</sup>
Percentile 90	<b>3.52</b> kWh/m <sup>2</sup>
Percentile 75	<b>3.49</b> kWh/m <sup>2</sup>
Percentile 50 (Median)	<b>3.45</b> kWh/m <sup>2</sup>
Percentile 25	<b>3.42</b> kWh/m <sup>2</sup>
Percentile 10	<b>3.38</b> kWh/m <sup>2</sup>
Minimum	<b>3.31</b> kWh/m <sup>2</sup>

### Cumulative distribution function

Global tilted irradiation at optimum angle



### Distribution

Global tilted irradiation at optimum angle

less than 3.40	<b>17.3</b> %	<div style="width: 17.3%;"></div>
more than 3.40	<b>82.7</b> %	<div style="width: 82.7%;"></div>
	<b>100.0</b> %	

## OPTA - AREA ANALYSIS

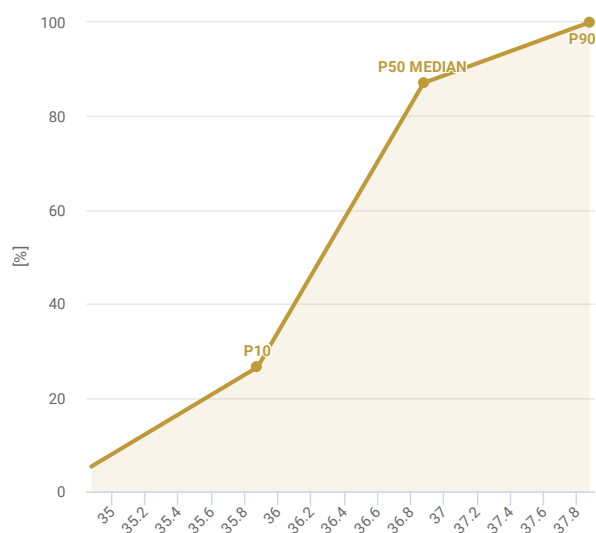
### Statistics

Optimum tilt of PV modules

Average	<b>37</b> °
Maximum	<b>38</b> °
Percentile 90	<b>38</b> °
Percentile 75	<b>37</b> °
Percentile 50 (Median)	<b>37</b> °
Percentile 25	<b>36</b> °
Percentile 10	<b>36</b> °
Minimum	<b>35</b> °

### Cumulative distribution function

Optimum tilt of PV modules



### Distribution

Optimum tilt of PV modules

less than 35	<b>5.3</b> %	<div style="width: 5.3%;"></div>
35 – 36	<b>21.2</b> %	<div style="width: 21.2%;"></div>
36 – 37	<b>60.6</b> %	<div style="width: 60.6%;"></div>
more than 37	<b>12.9</b> %	<div style="width: 12.9%;"></div>
	<b>100.0</b> %	

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## TEMP - AREA ANALYSIS

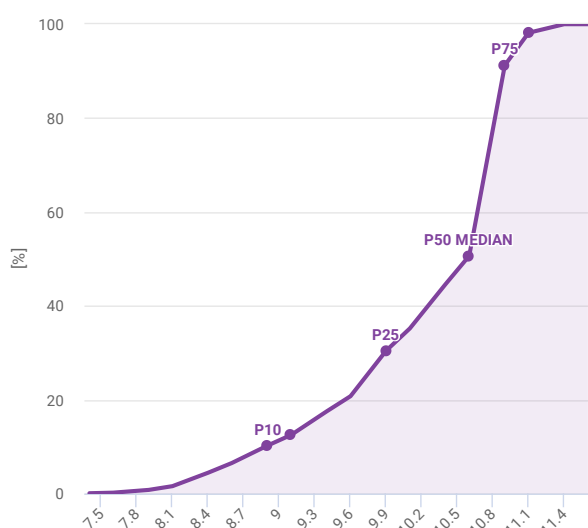
### Statistics

Air temperature

Average	10.3 °C
Maximum	11.3 °C
Percentile 90	11.0 °C
Percentile 75	10.9 °C
Percentile 50 (Median)	10.7 °C
Percentile 25	9.9 °C
Percentile 10	9.0 °C
Minimum	7.9 °C

### Cumulative distribution function

Air temperature



### Distribution

Air temperature

less than 9.0	10.2 %	
9.0 – 10.0	20.2 %	
10.0 – 11.0	60.8 %	
more than 11.0	8.8 %	
	100.0 %	

## ELE - AREA ANALYSIS

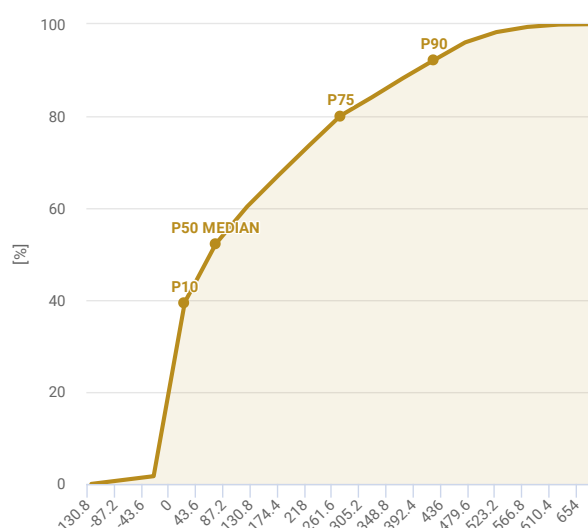
### Statistics

Terrain elevation

Average	157 m
Maximum	692 m
Percentile 90	422 m
Percentile 75	258 m
Percentile 50 (Median)	88 m
Percentile 25	24 m
Percentile 10	7 m
Minimum	-103 m

### Cumulative distribution function

Terrain elevation



### Distribution

Terrain elevation

less than 0	1.7 %	
0 – 200	65.4 %	
200 – 400	21.2 %	
more than 400	11.7 %	
	100.0 %	

# GLOBAL SOLAR ATLAS

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## GLOSSARY

Acronym	Full name	Unit	Type of use
DIF	Diffuse horizontal irradiation	kWh/m <sup>2</sup> , MJ/m <sup>2</sup>	Average yearly, monthly or daily sum of diffuse horizontal irradiation (© 2019 Solargis)
DNI	Direct normal irradiation	kWh/m <sup>2</sup> , MJ/m <sup>2</sup>	Average yearly, monthly or daily sum of direct normal irradiation (© 2019 Solargis)
ELE	Terrain elevation	m, ft	Elevation of terrain surface above/below sea level, processed and integrated from SRTM-3 data and related data products (© 2019 SRTM team)
GHI	Global horizontal irradiation	kWh/m <sup>2</sup> , MJ/m <sup>2</sup>	Average annual, monthly or daily sum of global horizontal irradiation (© 2019 Solargis)
GTI	Global tilted irradiation	kWh/m <sup>2</sup> , MJ/m <sup>2</sup>	Average annual, monthly or daily sum of global tilted irradiation (© 2019 Solargis)
GTI_opta	Global tilted irradiation at optimum angle	kWh/m <sup>2</sup> , MJ/m <sup>2</sup>	Average annual, monthly or daily sum of global tilted irradiation for PV modules fix-mounted at optimum angle (© 2019 Solargis)
OPTA	Optimum tilt of PV modules	°	Optimum tilt of fix-mounted PV modules facing towards Equator set for maximizing GTI input (© 2019 Solargis)
PVOUT_total	Total photovoltaic power output	kWh, MWh, GWh	Yearly and monthly average values of photovoltaic electricity (AC) delivered by the total installed capacity of a PV system (© 2019 Solargis)
PVOUT_specific	Specific photovoltaic power output	kWh/kWp	Yearly and monthly average values of photovoltaic electricity (AC) delivered by a PV system and normalized to 1 kWp of installed capacity (© 2019 Solargis)
TEMP	Air temperature	°C, °F	Average yearly, monthly and daily air temperature at 2 m above ground. Calculated from outputs of ERA5 model (© 2019 NOAA and NASA)

## ABOUT

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