

# Ensemble-micro-onduleur

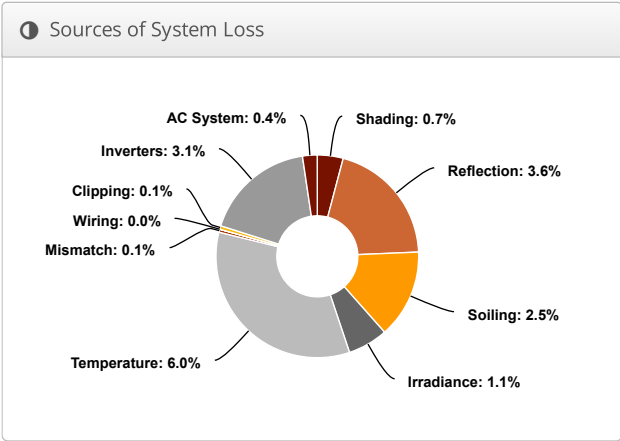
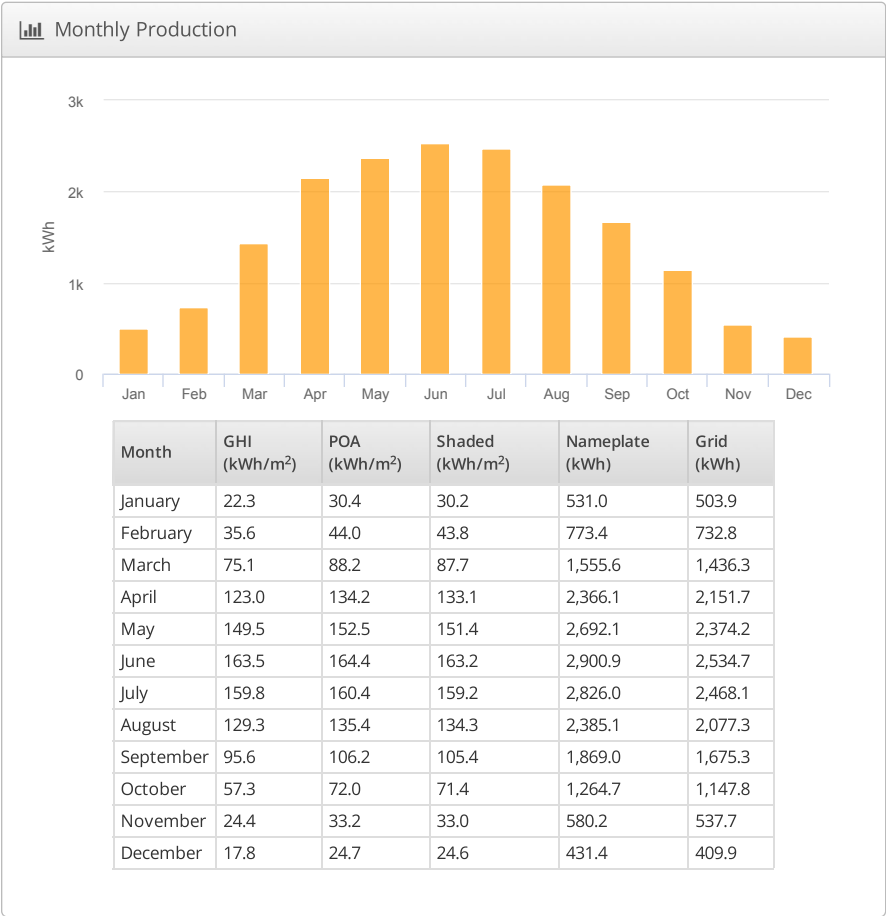
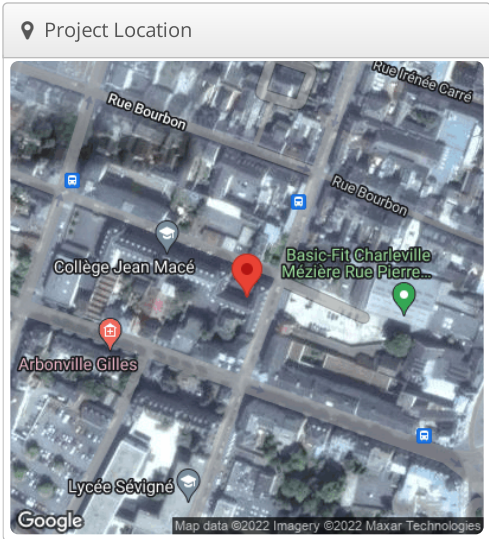
CONSERVATOIRE A RAYONNEMENT DEPARTEMENTAL, 10 Rue Madame de Sévigné,08000

Report

Project Name	CONSERVATOIRE A RAYONNEMENT DEPARTEMENTAL
Project Address	10 Rue Madame de Sévigné,08000
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System Metrics

Design	Ensemble-micro-onduleur
Module DC Nameplate	18.9 kW
Inverter AC Nameplate	14.2 kW Load Ratio: 1.33
Annual Production	18.05 MWh
Performance Ratio	83.5%
kWh/kWp	956.8
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	7e6fd0e96f-ab174a2b51-4024cb65de-07f77f23f7



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,053.3	
	POA Irradiance	1,145.7	8.8%
	Shaded Irradiance	1,137.3	-0.7%
	Irradiance after Reflection	1,096.7	-3.6%
	Irradiance after Soiling	1,069.2	-2.5%
	Total Collector Irradiance	1,069.3	0.0%
Energy (kWh)	Nameplate	20,175.3	
	Output at Irradiance Levels	19,946.8	-1.1%
	Output at Cell Temperature Derate	18,747.8	-6.0%
	Output After Mismatch	18,732.2	-0.1%
	Optimal DC Output	18,732.2	0.0%
	Constrained DC Output	18,713.6	-0.1%
	Inverter Output	18,124.8	-3.0%
	Energy to Grid	18,049.7	-0.4%
Temperature Metrics			
Avg. Operating Ambient Temp		12.6 °C	
Avg. Operating Cell Temp		25.0 °C	
Simulation Metrics			
Operating Hours			4609
Solved Hours			4609

📦 Components		
Component	Name	Count
Inverters	IQ7A-72-2-US (208V) (2019) (Enphase)	49 (14.2 kW)
AC Branches	1000 MCM (Aluminum)	2 (209.9 m)
Module	Voltec Solar, TARKA 126 VSBD 385 (385W)	49 (18.9 kW)

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type			a		b		Temperature Delta				
	Fixed Tilt			-3.56		-0.075		3°C				
	Flush Mount			-2.81		-0.0455		0°C				
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	3.00%											
Module Characterizations	Module					Uploaded By		Characterization				
	TARKA 126 VSBD 385 (Voltec Solar)					HelioScope		Spec Sheet Characterization, PAN				
Component Characterizations	Device		Uploaded By				Characterization					



### Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	1-2	Along Racking



### Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	30°	200.85655°	0.0 m	1x1	13	13	5.01 kW
Field Segment 2	Flush Mount	Portrait (Vertical)	30°	20.868809°	0.0 m	1x1			0
Field Segment 3	Flush Mount	Portrait (Vertical)	25°	110.53787°	0.0 m	1x1			0
Field Segment 4	Flush Mount	Portrait (Vertical)	30°	290.8144°	0.0 m	1x1			0
Field Segment 5	Flush Mount	Portrait (Vertical)	22°	20.002943°	0.0 m	1x1			0
Field Segment 6	Flush Mount	Portrait (Vertical)	23°	109.69443°	0.0 m	1x1	24	24	9.24 kW
Field Segment 6 (copy)	Flush Mount	Portrait (Vertical)	23°	291.31058°	0.0 m	1x1			0
Field Segment 8	Flush Mount	Portrait (Vertical)	20°	21.794008°	0.0 m	1x1			0
Field Segment 9	Flush Mount	Portrait (Vertical)	30°	199.90921°	0.0 m	1x1	12	12	4.62 kW
Field Segment 10	Flush Mount	Portrait (Vertical)	29°	20.06393°	0.0 m	1x1			0
Field Segment 11	Flush Mount	Portrait (Vertical)	30°	110.33436°	0.0 m	1x1			0
Field Segment 12	Flush Mount	Portrait (Vertical)	35°	289.03333°	0.0 m	1x1			0

Detailed Layout

