

# voltec 385 toiture inclinée

## DECHETTERIE WARIDON, 24 r emile mabille,08090 Montcy-Notre-Dame

### Report

Project Name	DECHETTERIE WARIDON
Project Address	24 r emile mabille,08090 Montcy-Notre-Dame
Prepared By	Kamar Amine kamin008@fiu.edu

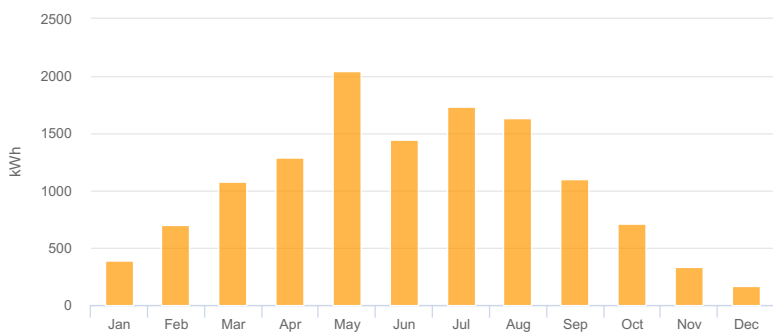
### System Metrics

Design	voltec 385 toiture inclinée
Module DC Nameplate	12.3 kW
Inverter AC Nameplate	9.28 kW Load Ratio: 1.33
Annual Production	12.63 MWh
Performance Ratio	83.8%
kWh/kWp	1,025.4
Weather Dataset	TMY, unknown, ECMWF/ERA (custom)
Simulator Version	9e86c4e1db-9514b63be0-bd0277d220-518e709a6c

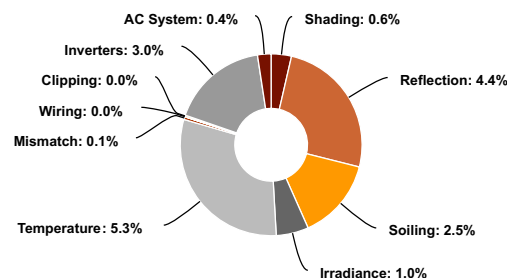
### Project Location



### Monthly Production



### Sources of System Loss



### Annual Production

	Description	Output	% Delta
Irradiance (kWh/m <sup>2</sup> )	Annual Global Horizontal Irradiance	1,169.8	
	POA Irradiance	1,223.4	4.6%
	Shaded Irradiance	1,215.8	-0.6%
	Irradiance after Reflection	1,162.4	-4.4%
	Irradiance after Soiling	1,133.3	-2.5%
	<b>Total Collector Irradiance</b>	<b>1,133.5</b>	<b>0.0%</b>
Energy (kWh)	Nameplate	13,964.7	
	Output at Irradiance Levels	13,825.2	-1.0%
	Output at Cell Temperature Derate	13,095.9	-5.3%
	Output After Mismatch	13,084.5	-0.1%
	Optimal DC Output	13,084.5	0.0%
	Constrained DC Output	13,078.3	0.0%
	Inverter Output	12,685.7	-3.0%
	<b>Energy to Grid</b>	<b>12,632.7</b>	<b>-0.4%</b>
Temperature Metrics			
	Avg. Operating Ambient Temp		12.3 °C
	Avg. Operating Cell Temp		26.1 °C
Simulation Metrics			
	Operating Hours	4211	
	Solved Hours	4211	

☁ Condition Set													
Description	Condition Set 1												
Weather Dataset	TMY, unknown, ECMWF/ERA (custom)												
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	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					
	IQ7A-72-2-US (208V) (2019) (Enphase)					HelioScope		Spec Sheet					

🗂 Components		
Component	Name	Count
Inverters	IQ7A-72-2-US (208V) (2019) (Enphase)	32 (9.28 kW)
AC Branches	1000 MCM (Aluminum)	1 (98.3 m)
Module	Voltec Solar, TARKA 126 VSBD 385 (385W)	32 (12.3 kW)

🔌 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	Landscape (Horizontal)	5°	130.75154°	0.0 m	1x1	32	32	12.3 kW
Field Segment 1 (copy)	Flush Mount	Landscape (Horizontal)	5°	310.75156°	0.0 m	1x1			0
Field Segment 3	Flush Mount	Landscape (Horizontal)	5°	310.60748°	0.0 m	1x1			0

