Design 1 Poliklinika Družba, Starohájska 2

Report

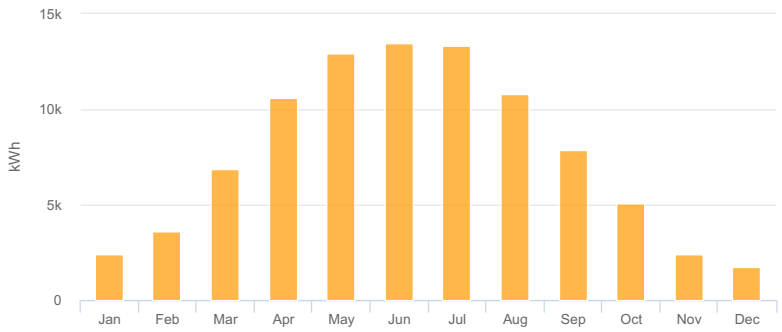
Project Name	Poliklinika Družba
Project Address	Starohájska 2
Prepared By	

System Metrics

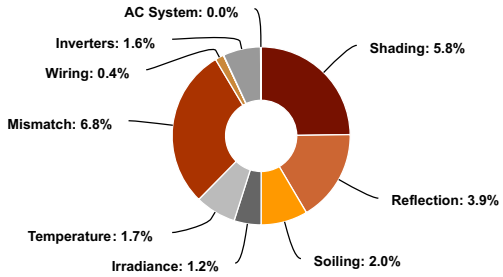
Design	Design 1
Module DC Nameplate	91.8 kW
Inverter AC Nameplate	72.0 kW Load Ratio: 1.28
Annual Production	91.19 MWh
Performance Ratio	78.7%
kWh/kWp	993.4
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	60f4c79d82-24b1416d39-579e641e25-d1464a15ec

Project Location

Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,238.3	
	POA Irradiance	1,262.8	2.0%
	Shaded Irradiance	1,189.2	-5.8%
	Irradiance after Reflection	1,142.4	-3.9%
	Irradiance after Soiling	1,119.6	-2.0%
	Total Collector Irradiance	**1,119.7**	**0.0%**
Energy (kWh)	Nameplate	102,856.4	
	Output at Irradiance Levels	101,669.8	-1.2%
	Output at Cell Temperature Derate	99,890.6	-1.7%
	Output After Mismatch	93,061.0	-6.8%
	Optimal DC Output	92,715.8	-0.4%
	Constrained DC Output	92,699.2	0.0%
	Inverter Output	91,215.8	-1.6%
	Energy to Grid	**91,194.3**	**0.0%**
Temperature Metrics			
	Avg. Operating Ambient Temp		13.6 °C
	Avg. Operating Cell Temp		19.7 °C
Simulation Metrics			
	Operating Hours		4586
	Solved Hours		4586

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	2	2	2	2	2	2	2	2	2	2	2

Irradiation Variance	5%
Cell Temperature Spread	4° C
Module Binning Range	-2.5% to 2.5%
AC System Derate	0.50%

Module Characterizations

Module	Uploaded By	Characterization
CS3W-450MS (Canadian Solar)	HelioScope	Spec Sheet Characterization, PAN

Component Characterizations

Device	Uploaded By	Characterization
SUN2000-36KTL-M3 (400V) (2022) (Huawei)	HelioScope	Spec Sheet

Components

Component	Name	Count
Inverters	SUN2000-36KTL-M3 (400V) (2022) (Huawei)	2 (72.0 kW)
AC Home Runs	1000 MCM (Aluminum)	2 (168.7 m)
Strings	10 AWG (Copper)	12 (560.4 m)
Module	Canadian Solar, CS3W-450MS (450W)	204 (91.8 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	6-20	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	10°	164.96219°	0.5 m	1x1	64	56	25.2 kW
Field Segment 1 (copy)	East-West	Landscape (Horizontal)	10°	165.33307°	1.0 m	1x1	58	92	41.4 kW
Field Segment 1 (copy 1)	East-West	Landscape (Horizontal)	10°	165.33307°	1.0 m	1x1	33	56	25.2 kW

Detailed Layout