

FE JANKA MODRA - DOL PRI LJ
Videm 17, Dol pri Ljubljani, 1262, Slovenia | Jan 31, 2025



SYSTEM OVERVIEW

 390 PV modules

 2 Inverters

 195 Optimizers

SIMULATION RESULTS



Installed DC Power
175.50 kWp



Max Achieved AC Power
133.20 kW



Annual Solar Energy
Production
188.17 MWh



Annual CO2 Emission Saved
47.79 t



Annual Equivalent Trees
Planted
2,195



Max Achieved DC Power
160.75 kW



DC/AC Oversizing
121 %



Max Active AC Power
133.20 kW



Performance Ratio
90 %

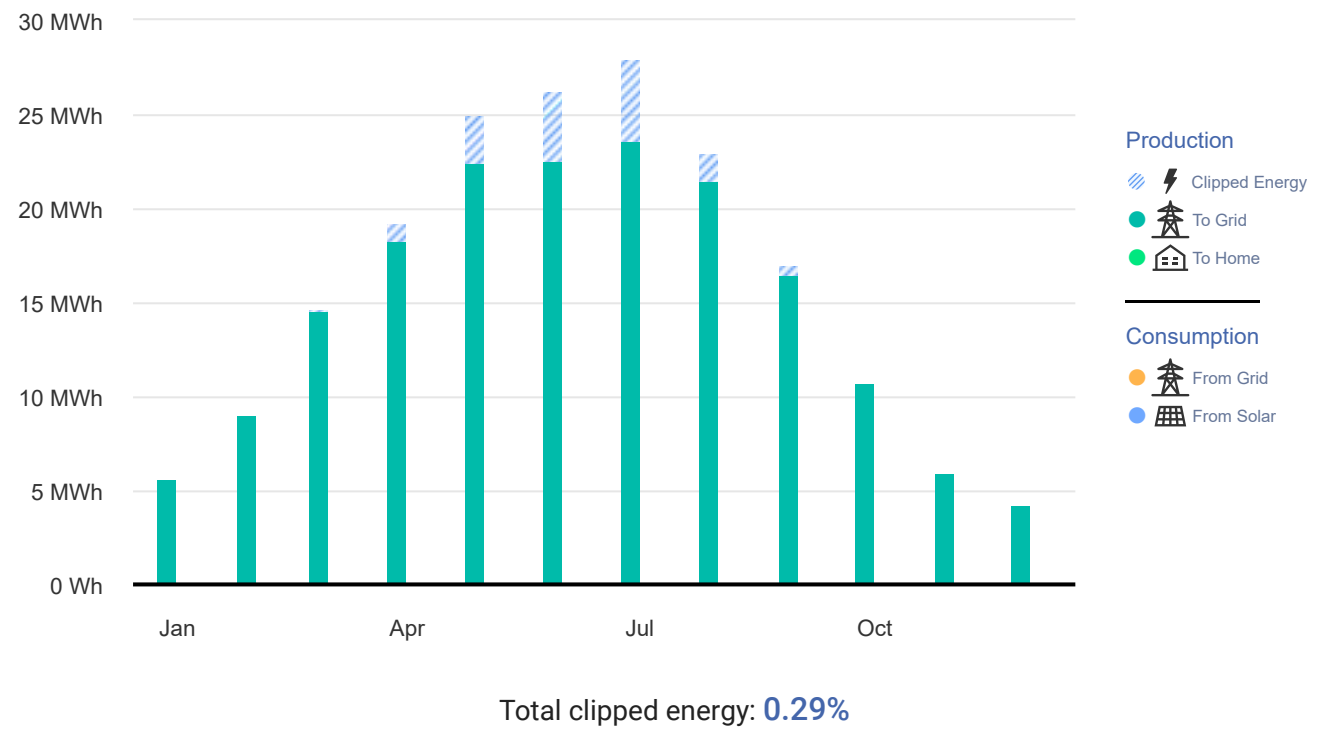


Annual Specific Production
1,072 kWh/kWp

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ESTIMATED MONTHLY ENERGY



PV MODULES




# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
156	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	70.2 kWp			308°	21°
234	Trina Solar Energy, TSM-450NEG9R.28 (user-defined)	105.3 kWp			128°	15°
Total: 390		175.5 kWp				

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BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (€)	Total (€)
 SE66.6K Synergy Manager		2		
 S1000		195		
 TSM-450NEG9R.28		390		

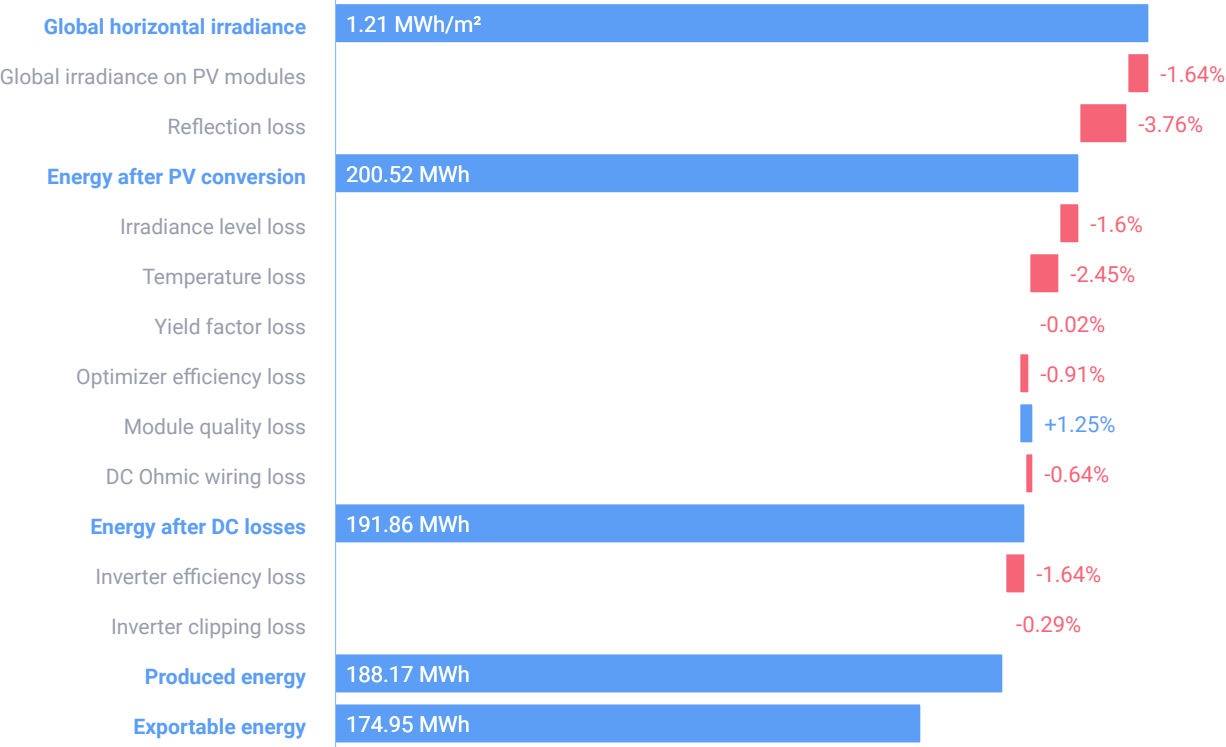
ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
 1 xSE66.6K Synergy Manager 80.52kW 121% Oversizing	Center Unit		
	1 x string	 17 x S1000 (2:1)	 34
	2 x strings	 18 x S1000 (2:1)	 36
	Left Unit		
	1 x string	 17 x S1000 (2:1)	 34
	1 x string	 16 x S1000 (2:1)	 32
 1 xSE66.6K Synergy Manager 80.23kW 120% Oversizing	1 x string	 16 x S1000 (2:1)	 32
	2 x strings	 15 x S1000 (2:1)	 30
	Left Unit		
	3 x strings	 15 x S1000 (2:1)	 30

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+1 (Ljubljana)
Weather station	Ljubljana (18.55 km away)
Station altitude	368 m
Station data source	Meteonorm 7.1
Grid	400V L-L, 230V L-N
Export limit to grid	85 kW



LOSS FACTORS

Near shading	Enabled
Albedo	0.20
Bi-Facial Albedo	0.30
Soiling/Snow	0%
Incidence angle modifier (IAM), ASHRAE b0 param.	0.05
Thermal loss factor Uc (const) Flush mount	20
Thermal loss factor Uc (const) Tilted	29
LID loss factor	0%
System unavailability	0%