

FVE ZDRAVSTVENI DOM MAKOLE
Makole 28, Makole, 2321, Slovenia | Apr 24, 2023



SYSTEM OVERVIEW



26 PV modules



1 Inverter



26 Optimizers

PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
8	Trienergia, TRIxxxSM-RR (user-defined)	2.5 kWp			142°	20°
18	Trienergia, TRIxxxSM-RR (user-defined)	5.6 kWp			232°	16°
Total:	26	8.1 kWp				

SIMULATION RESULTS



Installed DC Power

8.06 kWp



Max Achieved AC Power

7.00 kW



Annual Energy Production

9.11 MWh



CO2 Emission Saved

2.31 t



Equivalent Trees Planted

106



Max Achieved DC Power

7.83 kW



DC/AC Oversizing

112 %



Max Active AC Power

7.00 kW



Performance Ratio

86 %



Performance Index

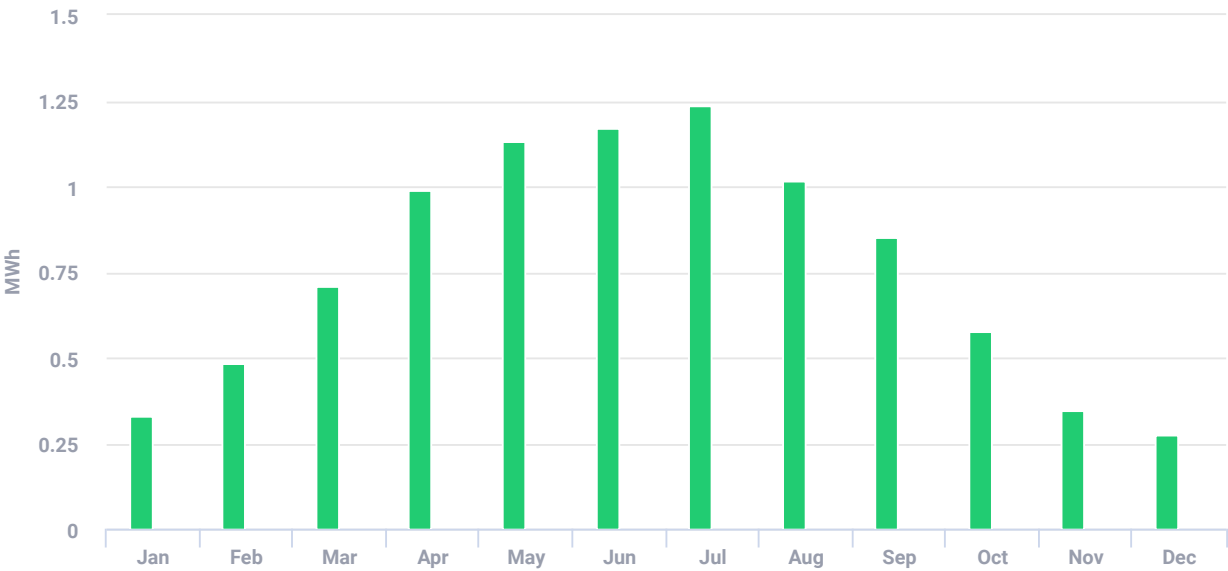
1,131 kWh/kWp

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ESTIMATED MONTHLY ENERGY

● Solar Production



Total clipped energy: 0%

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (€)
Total (€)			
 SE7K		1	
 S440		26	
 TRIxxxSM-RR		26	

ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
 1 xSE7K 7.83kW 112% Oversizing	 1 x string	 26 x S440	 26

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+2 (Ljubljana)
Weather station	Maribor (18.48 km away)
Station altitude	263 m
Station data source	Meteonorm 7.1
Grid	400V L-L, 230V L-N



LOSS FACTORS

Near shading	Enabled
Albedo	0.20
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%