

FVE VRTEC MAKOLE

Makole 39, Makole, 2321, Slovenia | Apr 24, 2023



SYSTEM OVERVIEW



67 PV modules



1 Inverter



67 Optimizers

PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
67	Trienergia, TRIxxxSM-RR (user-defined)	20.8 kWp			113°	38°
Total:	67	20.8 kWp				

SIMULATION RESULTS



Installed DC Power

20.77 kWp



Max Achieved AC Power

17.00 kW



Annual Energy Production

23.12 MWh



CO2 Emission Saved

5.87 t



Equivalent Trees Planted

270



Max Achieved DC Power

20.21 kW



DC/AC Oversizing

119 %



Max Active AC Power

17.00 kW



Performance Ratio

88 %



Performance Index

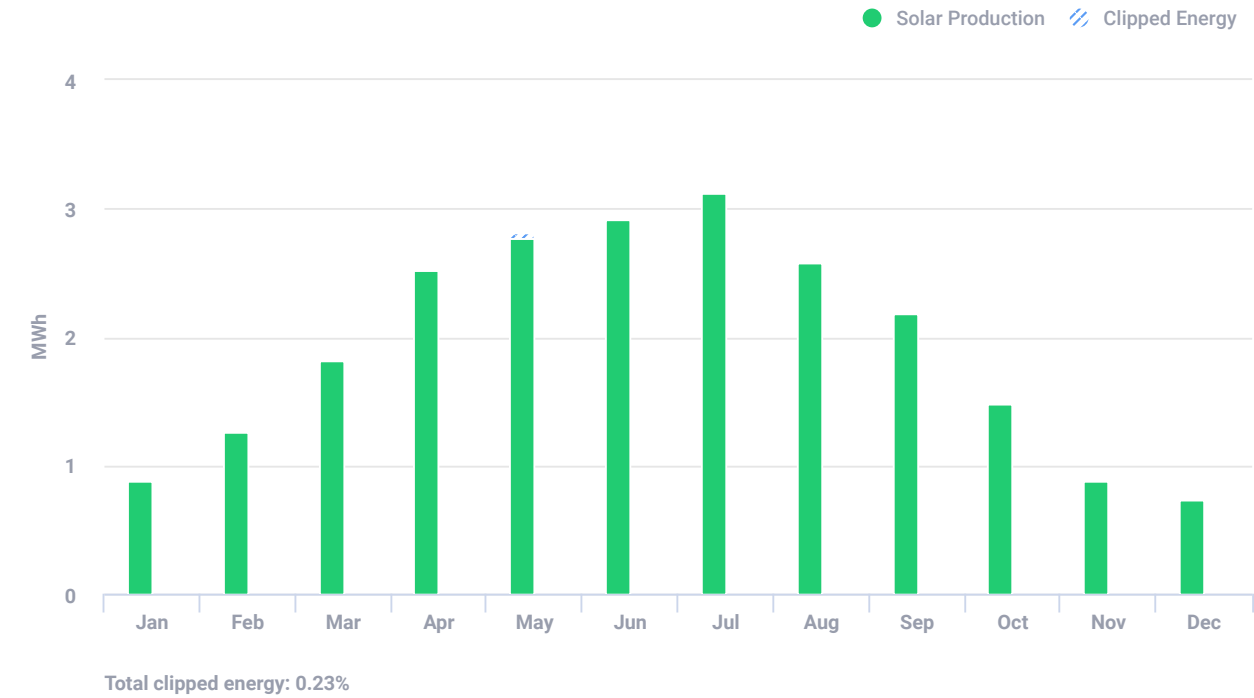
1,113 kWh/kWp

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ESTIMATED MONTHLY ENERGY



BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (€)
Total (€)			
SE17K		1	
S440		67	
TRIxxxSM-RR		67	

ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE17K 20.21kW 119% Oversizing	1 x string	34 x S440	34
	1 x string	33 x S440	33

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SYSTEM LOSS DIAGRAM



SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+2 (Ljubljana)
Weather station	Maribor (18.47 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%