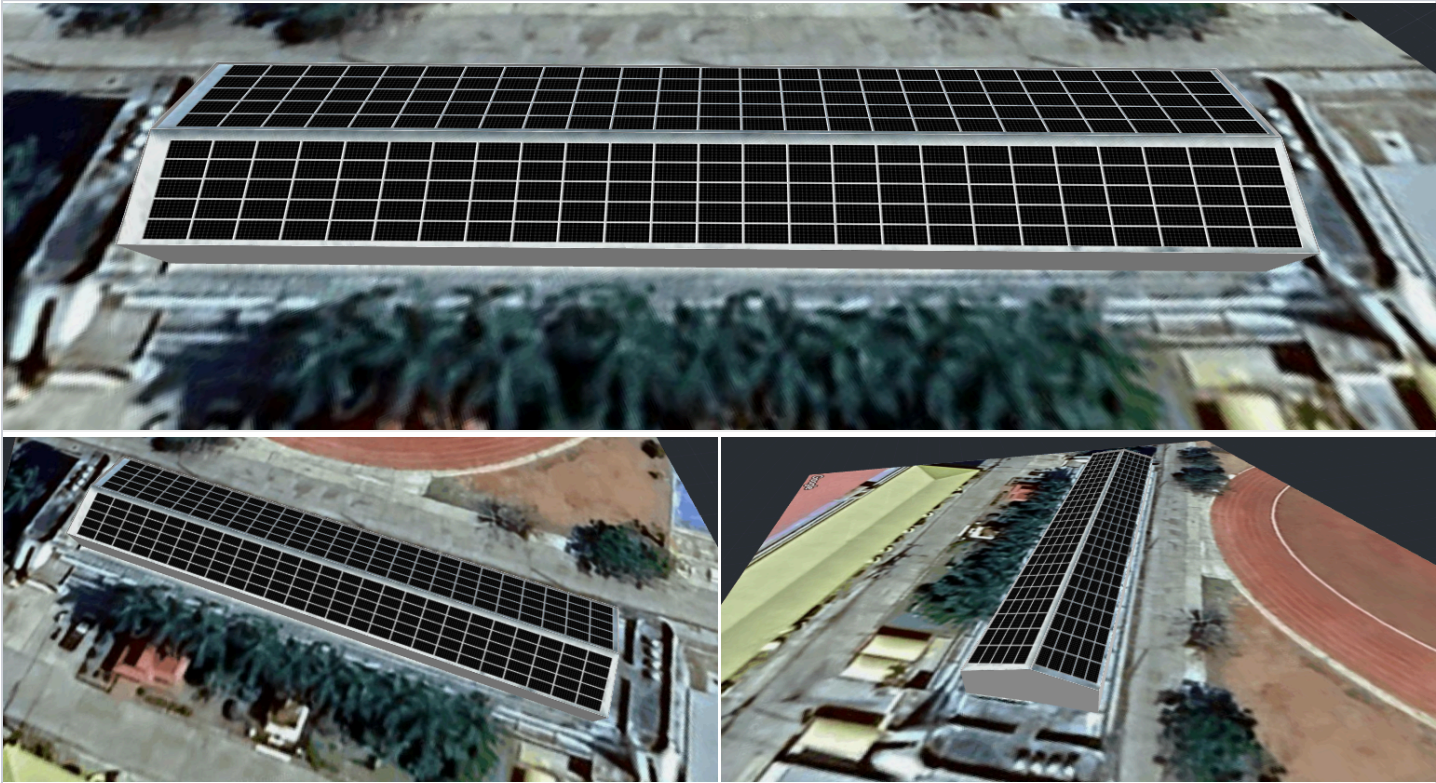


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NOTIFICATIONS

ⓘ Warning: This design contains power optimizers with PV modules in different azimuth/tilt, this may result in significant energy losses that are not reflected in this report. It is highly recommended to change the site design for optimal production.

SYSTEM OVERVIEW



250 PV modules



2 Inverters



125 Optimizers

SIMULATION RESULTS



Installed DC Power

156.25 kWp



Max Achieved AC Power

132.00 kW



Annual Energy Production

207.81 MWh



CO2 Emission Saved
(Annually)

81.46 t



Equivalent Trees Planted
(Annually)

3,742



Max Achieved DC Power

156.25 kW



DC/AC Oversizing

87 %



Max Active AC Power

180.00 kW



Performance Ratio

75 %



Performance Index

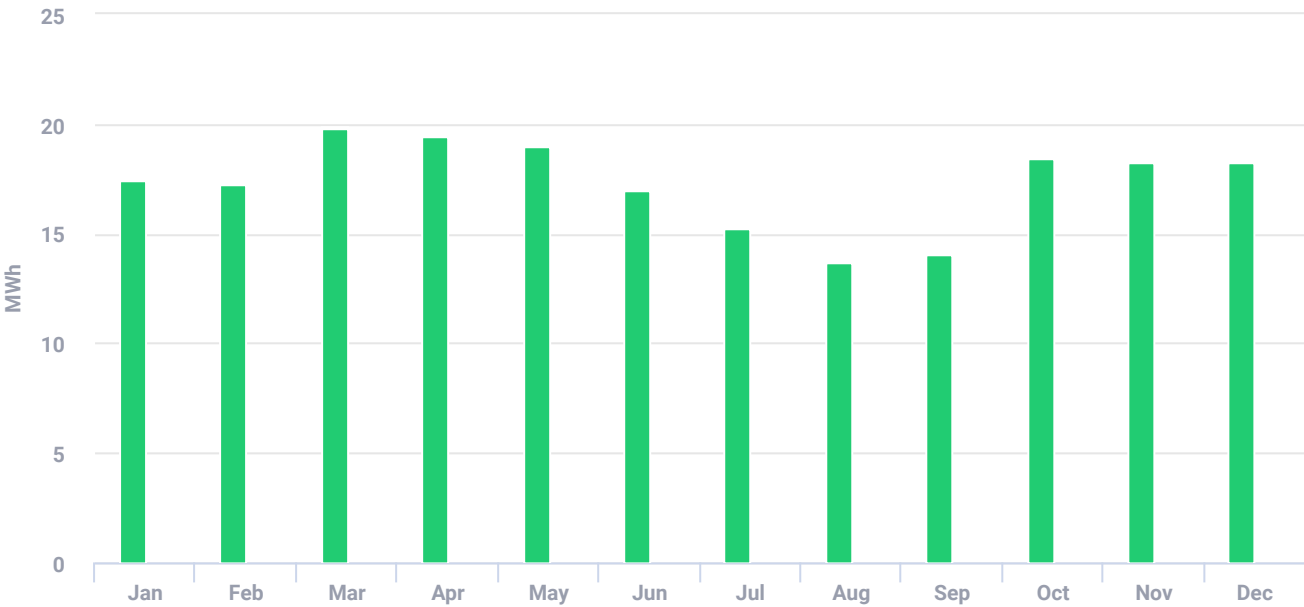
1,330 kWh/kWp

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ESTIMATED MONTHLY ENERGY

Solar Production Clipped Energy



Total clipped energy: 0.25%

Month	Solar Production (kWh)	Consumption (kWh)	Self-consumption (kWh)	Clipped Energy (kWh)
Jan	17,450	-	-	108
Feb	17,215	-	-	-
Mar	19,842	-	-	61
Apr	19,457	-	-	87
May	18,968	-	-	20
Jun	17,000	-	-	10
Jul	15,213	-	-	1
Aug	13,703	-	-	21
Sep	14,094	-	-	47
Oct	18,400	-	-	48
Nov	18,243	-	-	51
Dec	18,229	-	-	67

PV MODULES

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
125	JinkoSolar Holding Co. Ltd., JKM625N-78HL4-BDV (user-defined)	78.1 kWp			208°	12°

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PV MODULES (CONTINUED)

# Module	Model	Peak power	Racking type	Orientation	Azimuth	Tilt
125	JinkoSolar Holding Co. Ltd., JKM625N-78HL4-BDV (user-defined)	78.1 kWp			28°	13°
Total: 250		156.3 kWp				

BILL OF MATERIALS (BOM)

Items	Part Number	Quantity	Price (฿)	Total (฿)
	SE90K Synergy Manager	2		
	S1400	125		
	JKM625N-78HL4-BDV	250		

ELECTRICAL DESIGN

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
1 xSE90K Synergy ManagerCenter Unit 88.75kW 99% Oversizing	↻ 1 x string	15 x S1400 (2:1)	30
	↻ 1 x string	20 x S1400 (2:1)	40
	Left Unit		
	↻ 1 x string	18 x S1400 (2:1)	36
	Right Unit		
	↻ 1 x string	18 x S1400 (2:1)	36

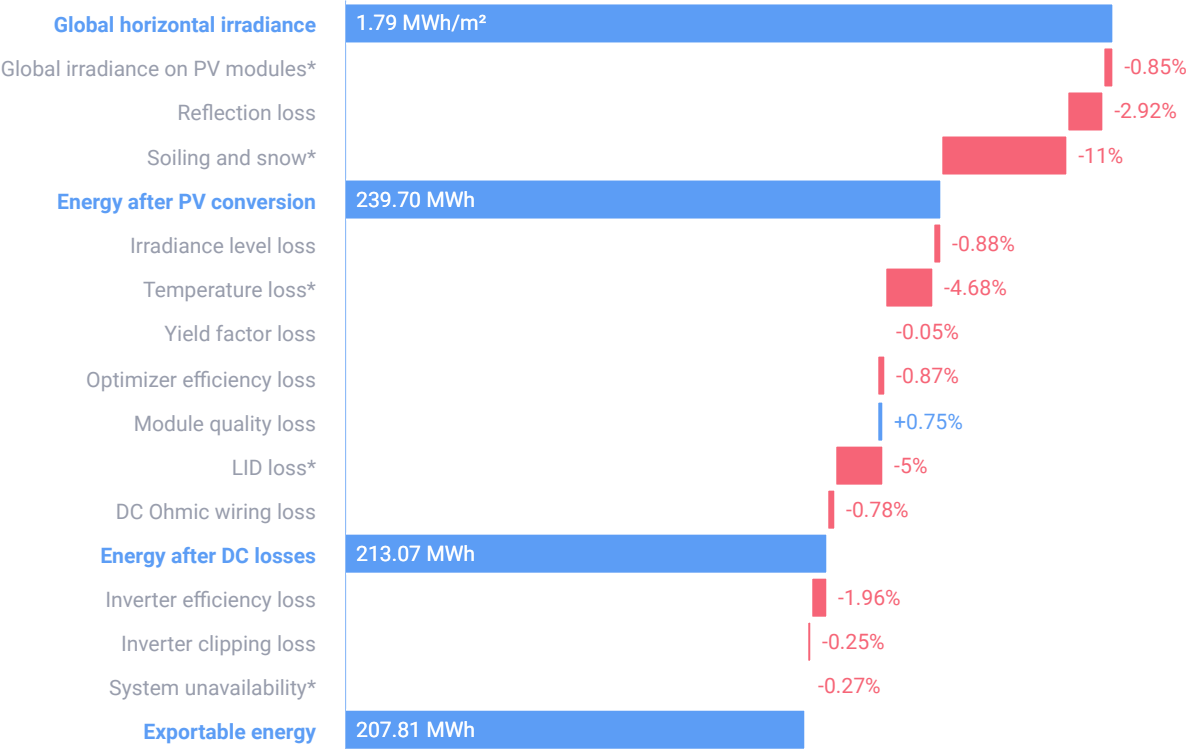
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ELECTRICAL DESIGN (CONTINUED)

Inverters & Storage	Strings per inverter	Optimizers per string	PV modules per string
<div> 1 xSE90K Synergy ManagerCenter Unit 67.5kW 75% Oversizing</div>	Ω 1 x string	<div> 18 x S1400 (2:1)</div>	<div> 36</div>
Left Unit			
	Ω 1 x string	<div> 18 x S1400 (2:1)</div>	<div> 36</div>
Right Unit			
	Ω 1 x string	<div> 18 x S1400 (2:1)</div>	<div> 36</div>

SYSTEM LOSS DIAGRAM



*This value is calculated based on custom input

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SIMULATION PARAMETERS



LOCATION & GRID

Time zone	GMT+7 (Bangkok)
Weather station	Chaiyaphum (51.28 km away)
Station altitude	183 m
Station data source	Meteonorm 7.1
Grid	400V L-L, 230V L-N



LOSS FACTORS

Near shading	Enabled
Albedo	0.60
Bi-Facial Albedo	0.30
Soiling/Snow	11%
Incidence angle modifier (IAM), ASHRAE b0 param.	0.05
Thermal loss factor U_c (const) Flush mount	35
Thermal loss factor U_c (const) Tilted	29
LID loss factor	5%
System unavailability	0.2% (in 3 periods)