

Capacity Assessment Harbour Building, Port Hamble Marina, SO31 4QD

Report

Project Name	Harbour Building
Project Address	Port Hamble Marina, SO31 4QD
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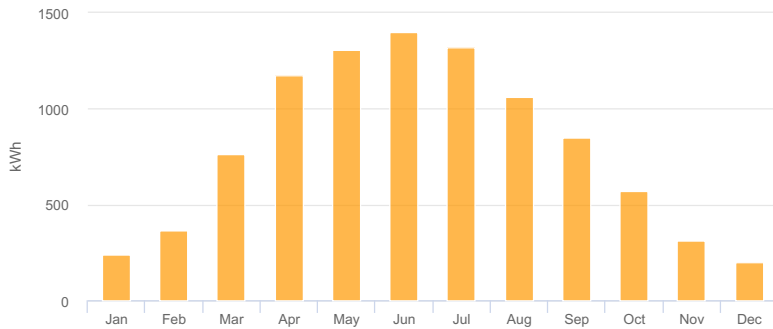
System Metrics

Design	Capacity Assessment
Module DC Nameplate	9.60 kW
Inverter AC Nameplate	8.96 kW Load Ratio: 1.07
Annual Production	9.561 MWh
Performance Ratio	85.4%
kWh/kWp	995.9
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	0179bed5b5-bad80ec21e-0e5098992e-56bca1a4a9

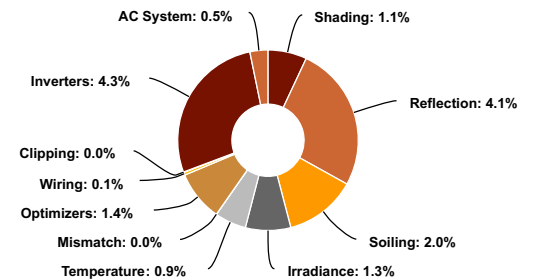
Project Location



Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,071.3	
	POA Irradiance	1,165.8	8.8%
	Shaded Irradiance	1,153.1	-1.1%
	Irradiance after Reflection	1,106.3	-4.1%
	Irradiance after Soiling	1,084.2	-2.0%
	Total Collector Irradiance	1,084.3	0.0%
Energy (kWh)	Nameplate	10,411.3	
	Output at Irradiance Levels	10,280.0	-1.3%
	Output at Cell Temperature Derate	10,189.8	-0.9%
	Output After Mismatch	10,189.8	0.0%
	Optimizer Output	10,047.1	-1.4%
	Optimal DC Output	10,039.2	-0.1%
	Constrained DC Output	10,038.0	0.0%
	Inverter Output	9,608.8	-4.3%
	Energy to Grid	9,560.8	-0.5%
Temperature Metrics			
	Avg. Operating Ambient Temp		13.4 °C
	Avg. Operating Cell Temp		19.5 °C
Simulation Metrics			
	Operating Hours		4567
	Solved Hours		4567

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						
	TSM-DE09.08 400 (Trina Solar)	Folsom Labs				Spec Sheet Characterization, PAN						
Component Characterizations	Device	Uploaded By				Characterization						

Components

Component	Name	Count
Inverters	SE9K-EU-APAC (SolarEdge)	1 (8.96 kW)
Strings	10 AWG (Copper)	2 (20.3 m)
Optimizers	P401 (SolarEdge)	24 (9.60 kW)
Module	Trina Solar, TSM-DE09.08 400 (400W)	24 (9.60 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	9-15	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	10°	185.6792497163849°	0.6 m	1x1	24	24	9.60 kW

Detailed Layout

