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Project name: New project
Project number: ---

Location: Sweden / Goteborg

Grid voltage: 230V (230V / 400V)

System overview

46 x LG Electronics Inc. LG315N1C-G4 (Neon 2) (05/2015) (PV array 1)

Azimuth angle: 120 °, Tilt angle: 6 °, Mounting type: Roof, Peak power: 14.49 kWp



1 x STP 12000TL-20

PV design data

Total number of PV modules:	46	Annual energy yield*:	11,940.80 kWh
Peak power:	14.49 kWp	Energy usability factor:	100 %
Number of PV inverters:	1	Performance ratio*:	87.1 %
Nominal AC power of the PV inverters:	12.00 kW	Spec. energy yield*:	824 kWh/kWp
AC active power:	12.00 kW	Line losses (in % of PV energy):	---
Active power ratio:	82.8 %	Unbalanced load:	0.00 VA

Signature

*Important: The yield values displayed are estimates. They are determined mathematically. SMA Solar Technology AG accepts no responsibility for the real yield value which can deviate from the yield values displayed here. Reasons for deviations are various external conditions, such as soiling of the PV modules or fluctuations in the efficiency of the PV modules.

Evaluation of design

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Ambient temperature:


Annual extreme low temperature: -13 °C

Average high Temperature: 17 °C

Annual extreme high temperature: 28 °C

Subproject 1

1 x STP 12000TL-20 (PV system section 1)

Peak power:	14.49 kWp
Total number of PV modules:	46
Number of PV inverters:	1
Max. DC power (cos φ = 1):	12.28 kW
Max. AC active power (cos φ = 1):	12.00 kW
Grid voltage:	230V (230V / 400V)
Nominal power ratio:	85 % 
Dimensioning factor:	120.8 %
Displacement power factor cos φ:	1



STP 12000TL-20

PV design data

Input A: PV array 1

36 x LG Electronics Inc. LG315N1C-G4 (Neon 2) (05/2015), Azimuth angle: 120 °, Tilt angle: 6 °, Mounting type: Roof

Input B: PV array 1

10 x LG Electronics Inc. LG315N1C-G4 (Neon 2) (05/2015), Azimuth angle: 120 °, Tilt angle: 6 °, Mounting type: Roof

	Input A:	Input B:	
Number of strings:	2	1	
PV modules per string:	18	10	
Peak power (input):	11.34 kWp	3.15 kWp	
Typical PV voltage:	 565 V	 314 V	
Min. PV voltage:	531 V	295 V	
Min. DC voltage (Grid voltage 230 V):	150 V	150 V	
Max. PV voltage:	 797 V	 443 V	
Max. DC voltage:	1000 V	1000 V	
Max. current of PV array:	 16.7 A	 8.3 A	
Max. DC current:	18 A	10 A	
Max. short-circuit current (inverter)	25 A	15 A	
Max. short-circuit current (PV array):	 17.6 A	 8.8 A	

PV/Inverter compatible

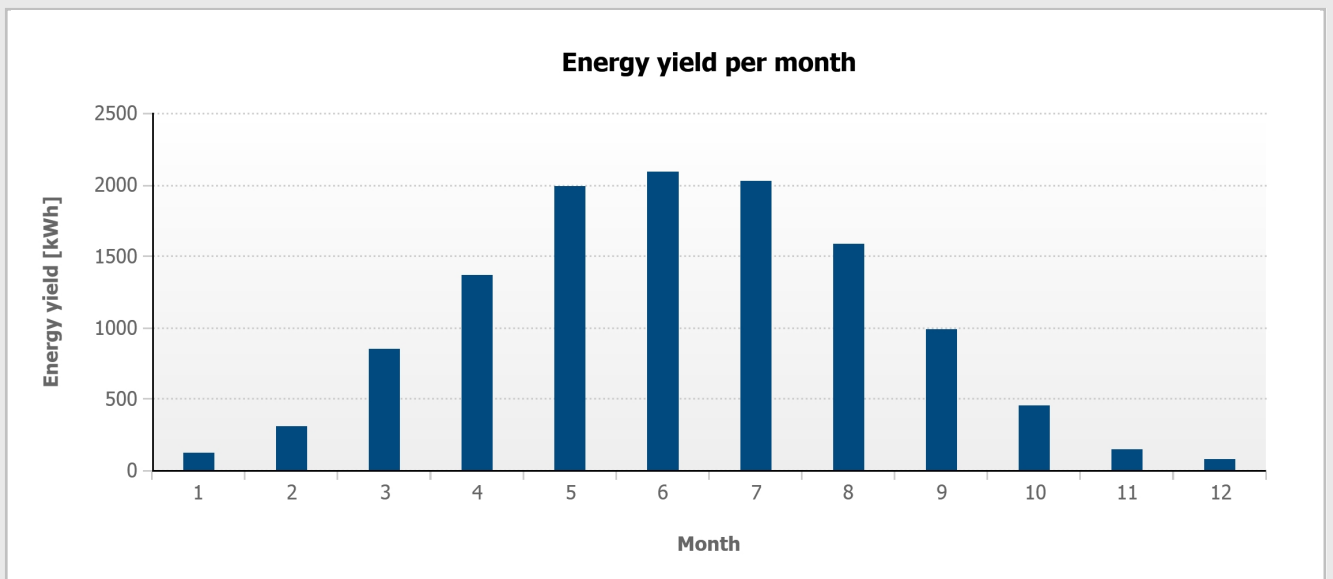
Monthly values

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Diagram



Table

Month	Energy yield [kWh]	Performance ratio
1	119 (1.0 %)	80 %
2	303 (2.5 %)	86 %
3	845 (7.1 %)	89 %
4	1362 (11.4 %)	89 %
5	1982 (16.6 %)	88 %
6	2083 (17.4 %)	88 %
7	2018 (16.9 %)	87 %
8	1579 (13.2 %)	87 %
9	982 (8.2 %)	87 %
10	450 (3.8 %)	85 %
11	145 (1.2 %)	81 %
12	73 (0.6 %)	77 %