Here is a helpful method to make a design.

General diagram:

1. **PV panels:**
   - 18 solar panels, usually divided into a matrix of 6 rows of 3 panels (depending on the available space). The panels must be electrically connected in parallel or in series, depending on the specifications of your inverter.
   - Each panel has positive and negative connections, and these must lead to the inverter via cables.
2. **Inverter:**
   - The inverter is the device that converts the direct current (DC) from the solar panels to alternating current (AC). The inverter must have the right capacity to process the generated current from 18 panels.
   - Connections from the panels go to the inverter, and the AC output of the inverter goes to the distribution board.
3. **Distribution board:**
   - The distribution board receives the AC current from the inverter. This can be a fuse box in which the current is further distributed to the rest of the house or building.
   - It is important to ensure proper grounding and protection measures (such as an automatic circuit breaker) to ensure the safety of the installation.

Steps to make a drawing:

1. **Draw the panels:**
   - Place 18 panels on a grid layout (e.g. 3 rows of 6 panels) and connect them with lines to indicate the electrical connection.
2. **Draw the inverter:**
   - Place the inverter after the solar panels. Connect the positive and negative wires from the solar panels to the input of the inverter.
3. **Connection to distribution board:**
   - Draw a line from the output of the inverter to the distribution board. This is the cable that carries the converted alternating current (AC) to the distribution point.
4. **Protection and grounding:**
   - Do not forget to indicate safety devices such as fuses, ground wires and surge protection on the drawing.

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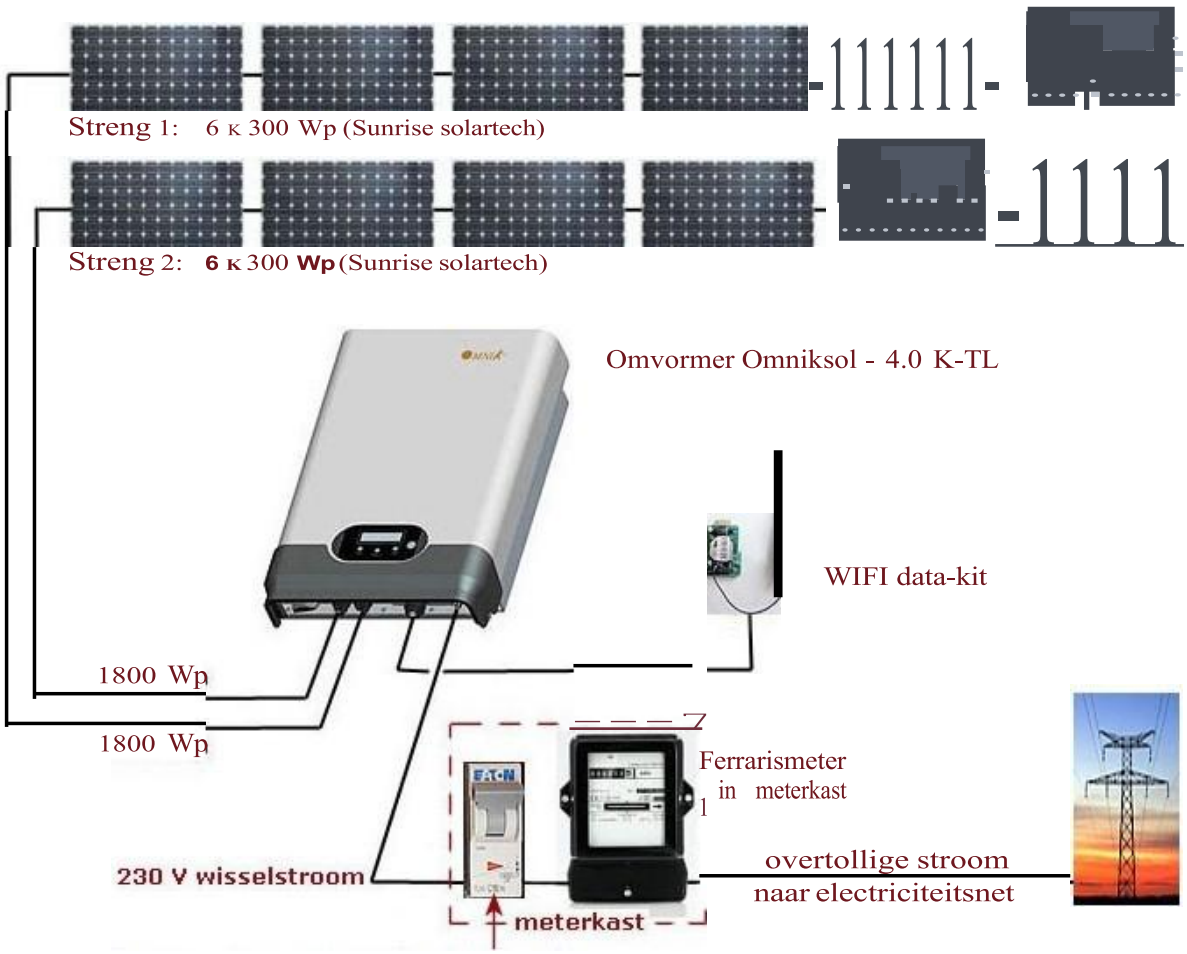

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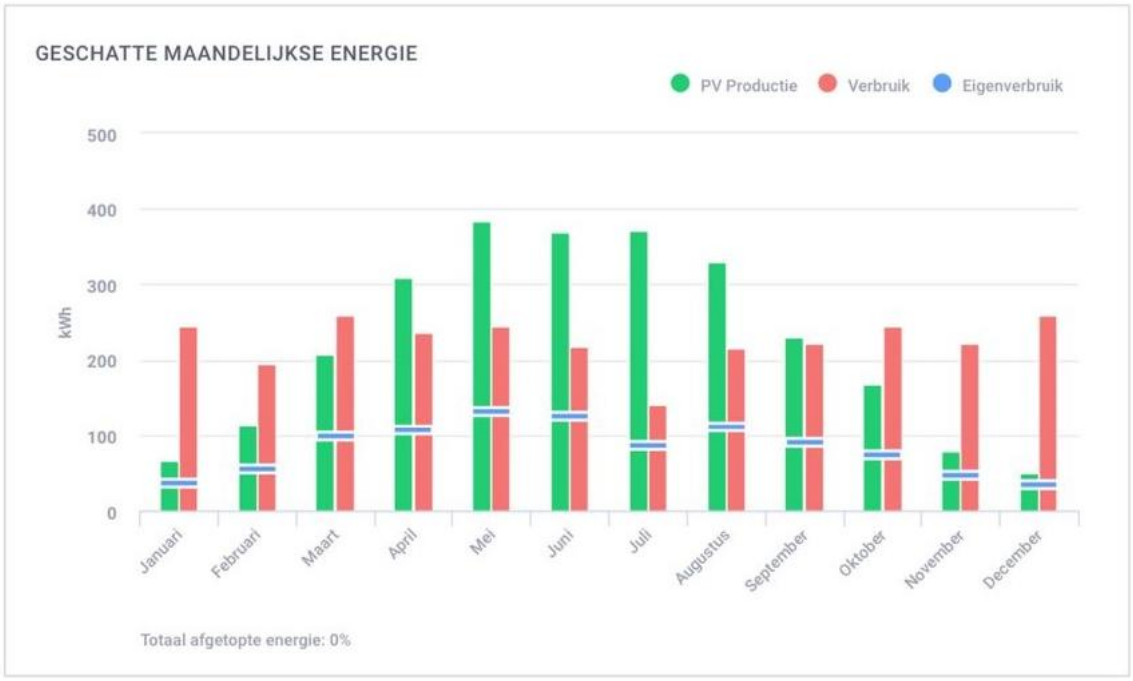

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ELEKTRISCH ONTWERP

Omvormers & Opslag	Strings per omvormer	Optimizers per string	Panelen per string
1 x SE3000H 2.78kW | 93%	1 x string	8 x P401	8

SYSTEEMVERLIES DIAGRAM

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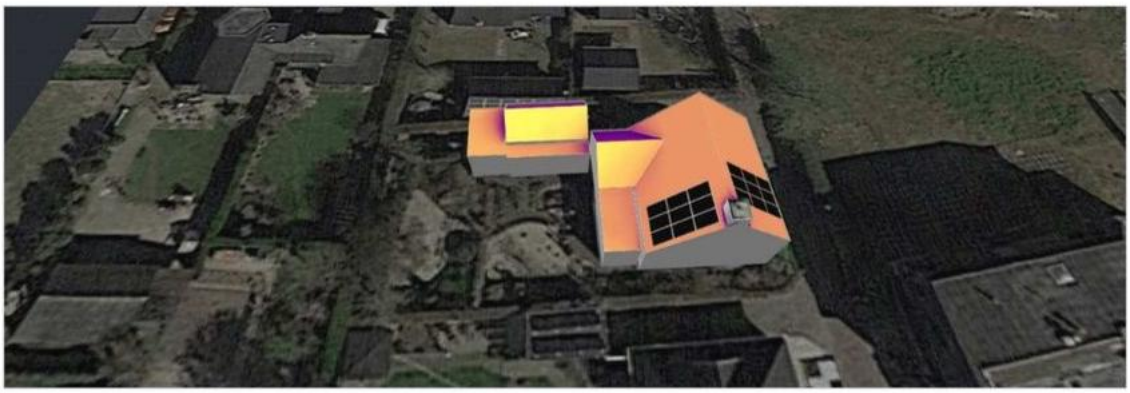

SYSTEEM OVERZICHT | 18 Panelen | 1 Omvormers | 18 Optimizers

SIMULATIERESULTATEN

Geïnstalleerd DC Vermogen	Maximaal Te Behalen AC Vermogen	Jaarlijkse Energieproductie	CO2-Uitstoot Bespaard	Aantal Geplante Bomen
7,20 kWp	4,00 kW	5,76 MWh	2,91 t	134

SIMULATIE PARAMETERS

LOCATIE & NET

Tijdzone	6-5-2021 CEST (Amsterdam)
Weerstation	Rees (24,39 km weg)
Weerstation hoogte	16 m
Weerstation gegevensbron	Meteonorm 7.1
Elektriciteitsnet	400V L-L, 230V L-N

VERLIESFACTOREN

Schaduw Dichtbij	Ingeschakeld
Albedo	0,20
Vervuiling & sneeuw	0%
Invalshoek wijziging (IAM), ASHRAE b0 param.	0,05
Thermische verliesfactor Uc (const) parallel	20
Thermische verliesfactor Uc (const) Schuin	29
LID verliesfactor	0%
Systeem onbeschikbaar	0%

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GESCHATTE MAANDELIJKSE ENERGIE

Totaal afgetopte energie: 0,01%

PANELEN

# Paneel	Model	Piekvermogen	Type montagemateriaal	Oriëntatie	Oriëntatie	Hellingshoek
9	Astronergy Co. Ltd. (Chint Solar), CHSM54M(BL)-HC-400 (182) Astro 5 Semi	3,6 kWp			274°	40°
9	Astronergy Co. Ltd. (Chint Solar), CHSM54M(BL)-HC-400 (182) Astro 5 Semi	3,6 kWp			83°	36°
Totaal: 18		7,2 kWp				

MATERIAALLIJST (BOM)

Artikelen	Aantal	Prijs (€)	Totaal (€)

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ELEKTRISCH ONTWERP

Omvormers & Opslag	Strings per omvormer	Optimizers per string	Panelen per string
1 x SE4000H 5.04kW | 126%	1 x string	18 x S440	18

SYSTEEMVERLIES DIAGRAM

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