



INNOVOLTUS

New things under the sun



ENERGIEMANAGEMENT met de JULLIX

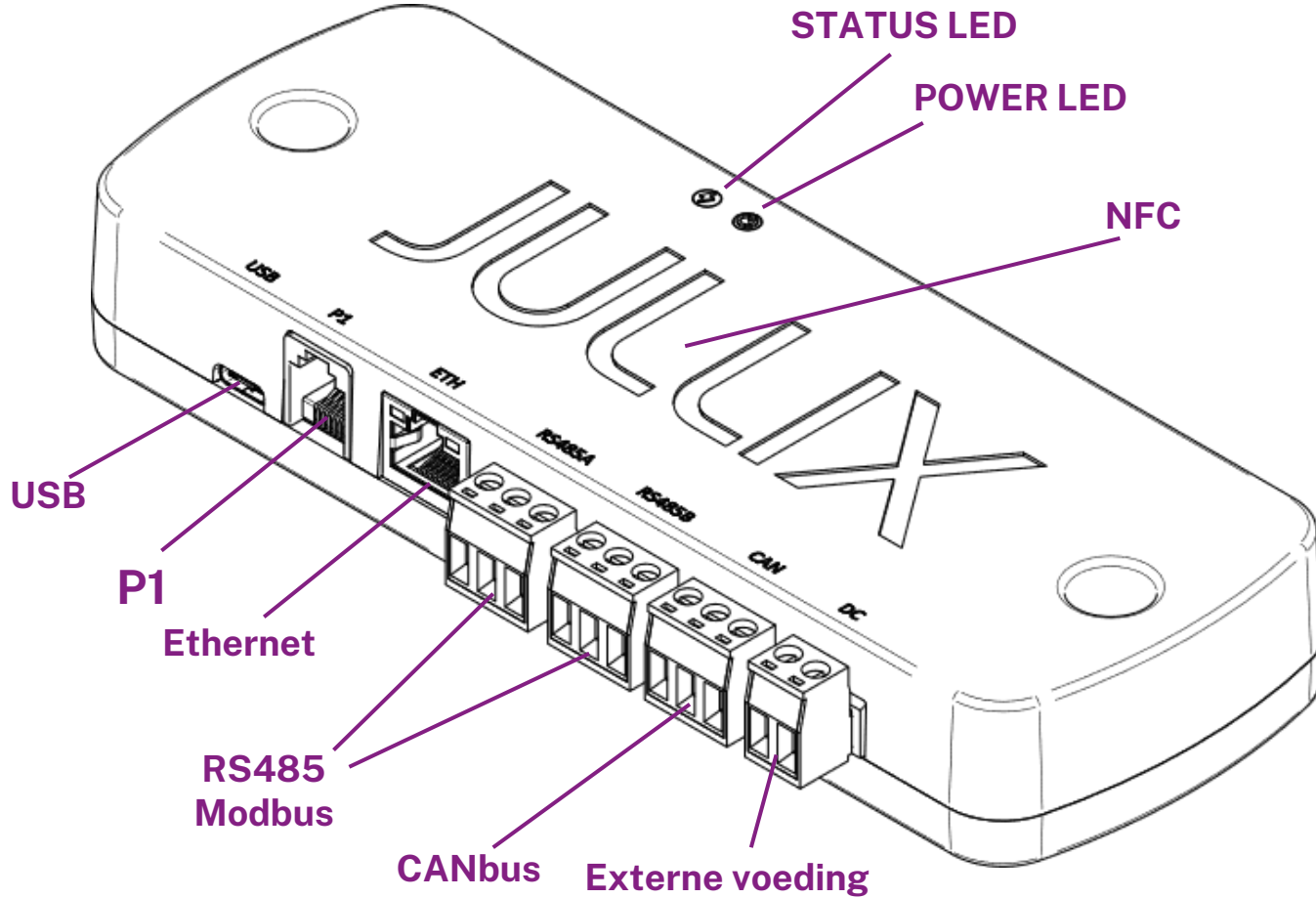
Deel 2: JULLIX EMS installeren



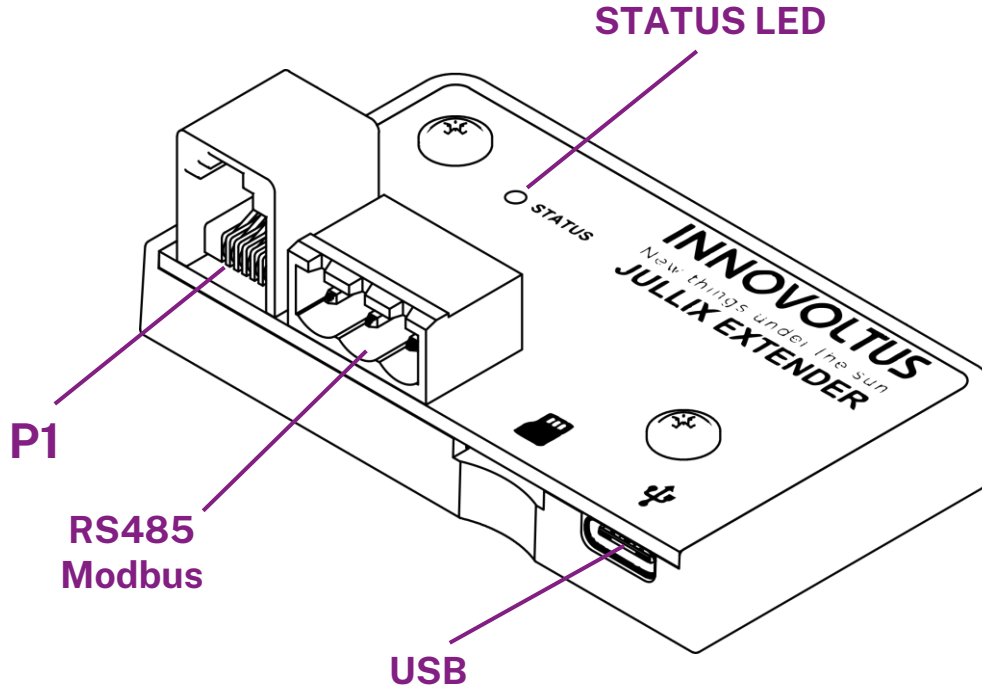
Energiemangement

Energiemanagement met de Jullix

Jullix module



Extender module



P1 connectie = Koppeling digitale meter

- Realtime data (1 sec)
- Energie import, export, dal en piek (kWh)
- Vermogen import, export per fase
- Spanningen, stromen
- Capaciteitstarief (piek verbruik)
- Voeding van de JULLIX
- (water, gas)

RS 485 connectie (UNITRONIC® BUS LD 1x2x0,22) = Koppeling omvormer (modbus)

- PV (zonnepanelen)
 - monitoring opbrengst(kWh), vermogen(kW)
 - monitoring PV-string spanning, stroom, vermogen
 - beperking opgewekt vermogen * (CURTAILEN)
- Batterij omvormer
 - monitoring SoC, batterij spanning, vermogen
 - sturing laad-, ontlad-vermogen UNITRONIC® BUS LD 1x2x0,22
- Energiemeter
- Laadpaal

Ethernet connectie (cat5e) = koppeling portaal

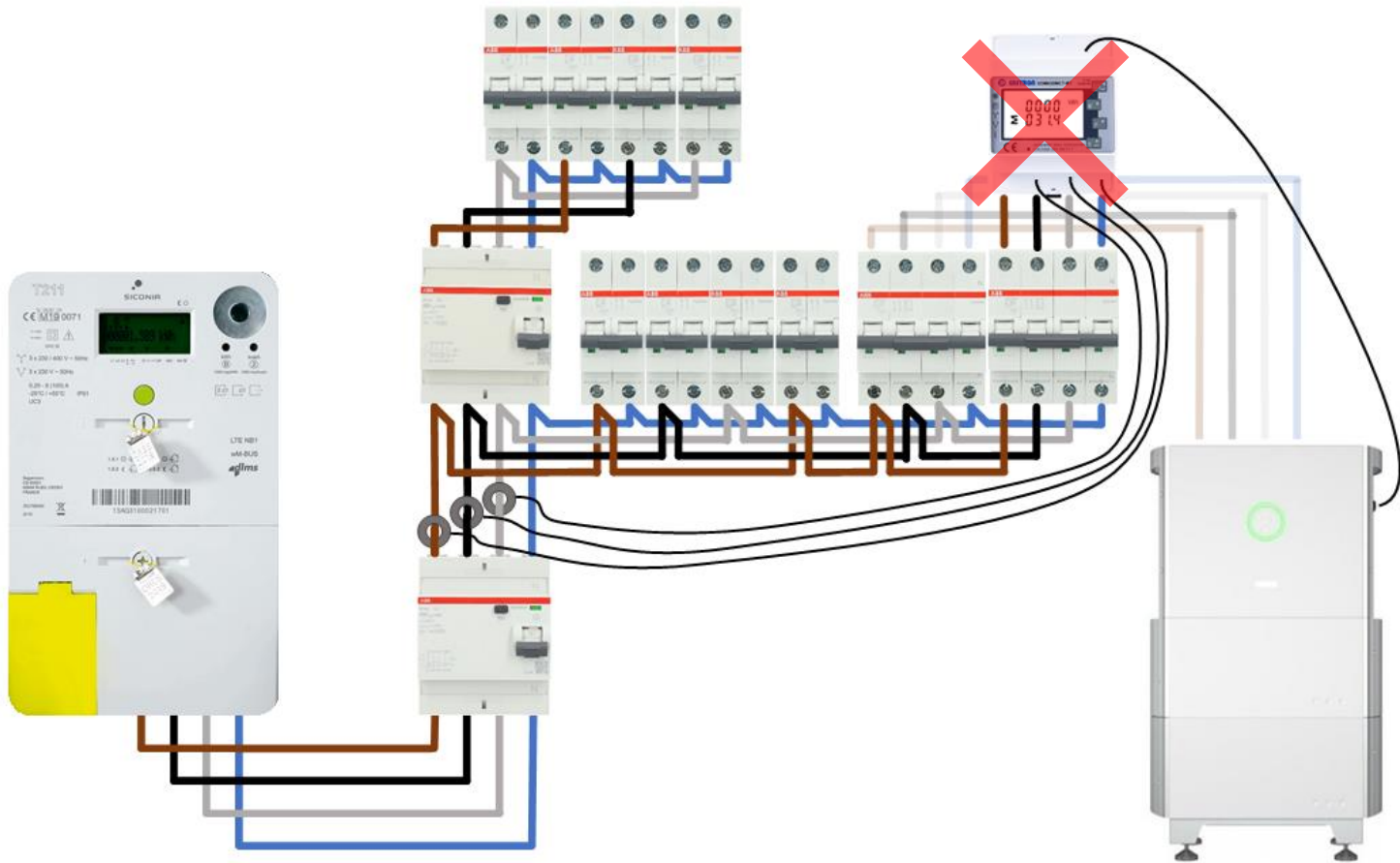
- JULLIX krijgt IP-adres van Router van klant en wordt verbonden met internet (Router = DHCP)
 - Het IP-adres kan je opvragen via het platform of via NFC of als je direct connecteert met de JULLIX.
 - Geen internet: Status LED knippert Geel.

Ethernet connectie = koppeling platform

- JULLIX stuurt energie en vermogen data van de componenten naar het platform
 - digitale meter
 - PV en batterij omvormers
 - Muon laadpalen
 - Nuo smartplug
- JULLIX ontvangt planning voor energiesturing van het platform
- =koppeling omvormers/laadpaal via TCP

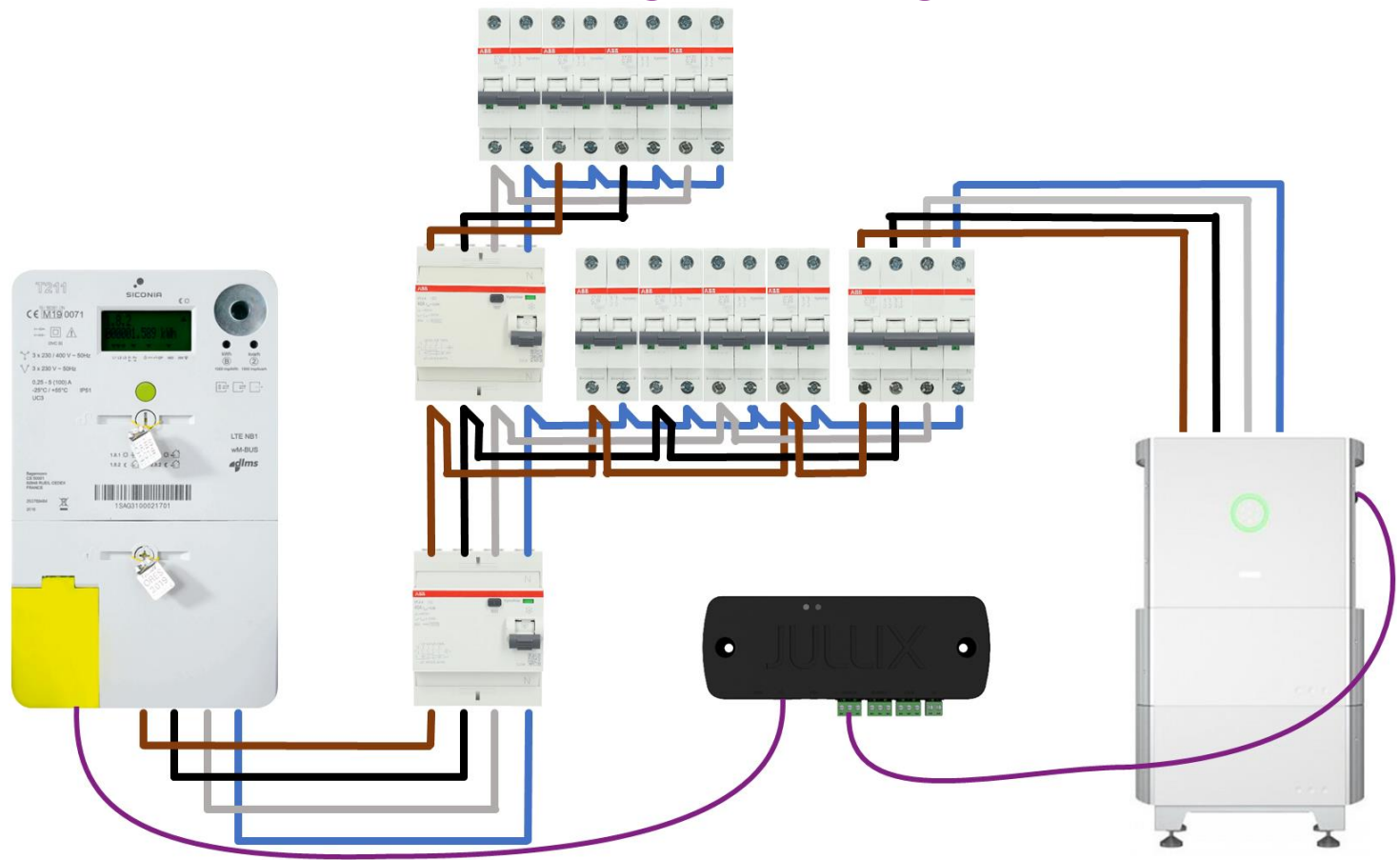
Energiemanagement met de Jullix

Geen energiemeter



Energiemanagement met de Jullix

Met digitale meter



Hybride omvormer

digitaalometer



S211
T211

Hybride omvormer



Zonnepanelen



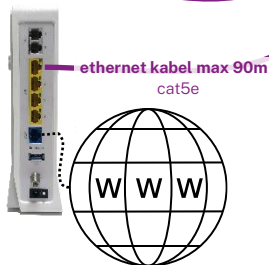
Jullix



thuisbatterij



Router

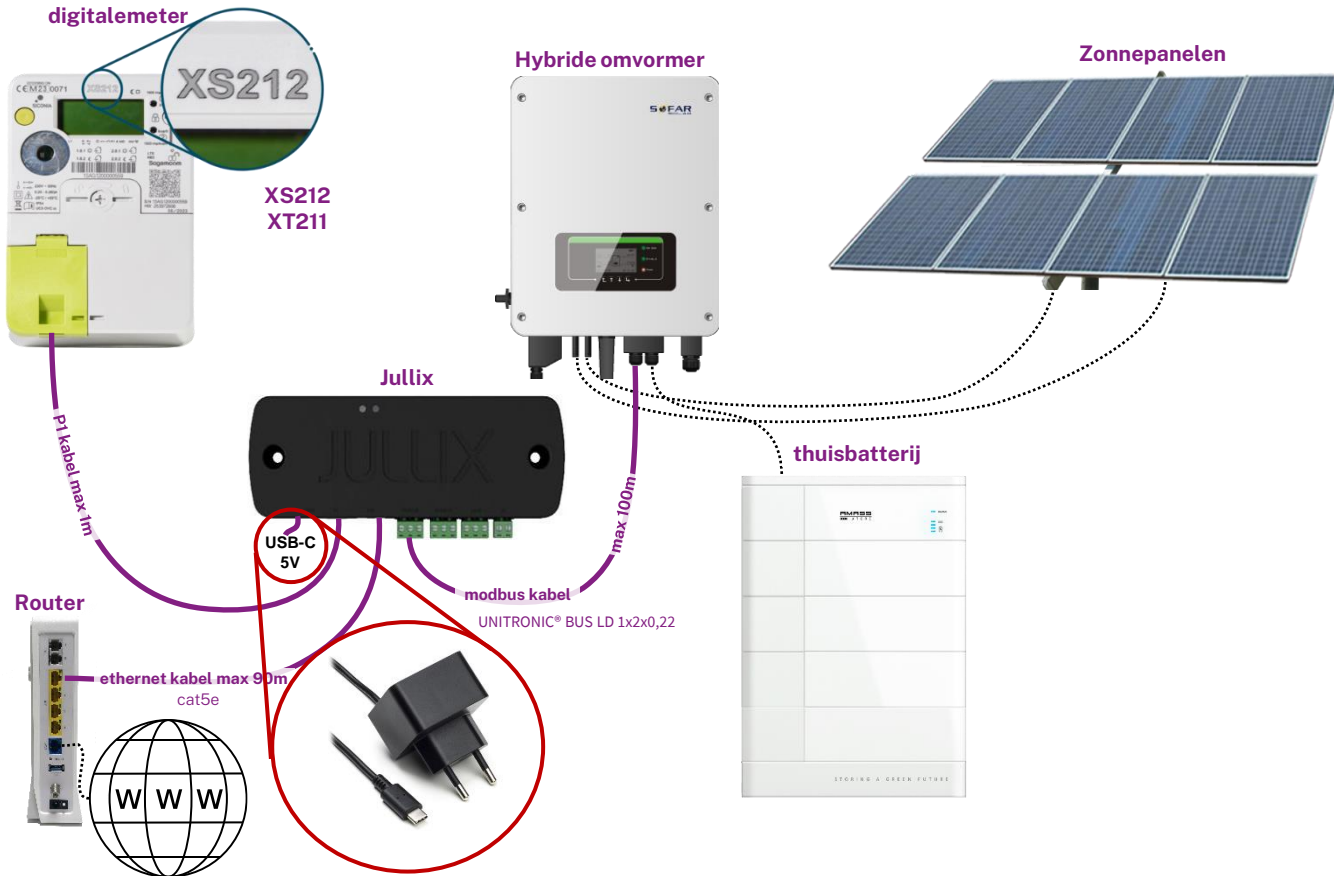


ethernet kabel max 90m
cat5e

modbus kabel
UNITRONIC® BUS LD 1x2x0,22

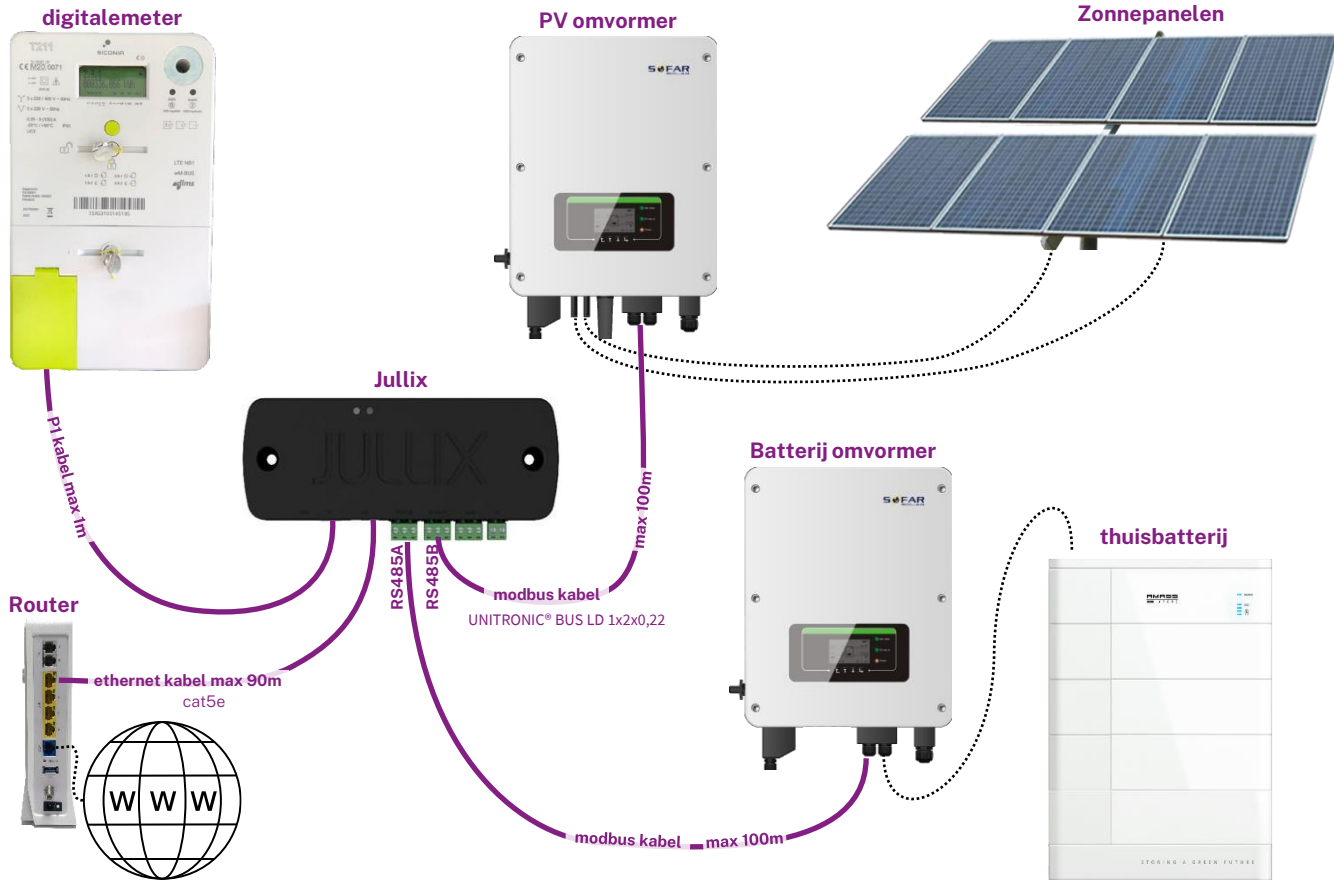
pt kabel max 1m

max 100m



Situatie: alles bij elkaar

Retrofit omvormer



Situatie: alles bij elkaar

Retrofit omvormer



digitale meter

Niet ondersteunde of
oude omvormer



PV omvormer



Zonnepanelen



Jullix

Energiemeter



Retrofit omvormer



thuisbatterij



Router



ethernet kabel max 90m
cat5e

pt kabel max 1m

RS485A

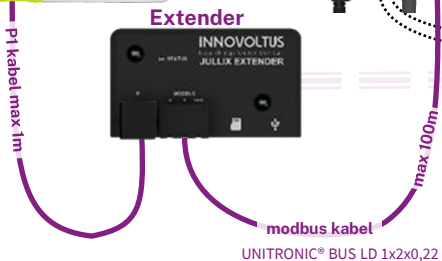
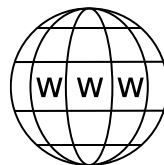
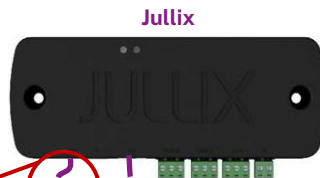
RS485B

modbus kabel
UNITRONIC® BUS LD 1x2x0,22

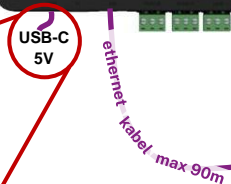
modbus kabel max 100m

Situatie: internet andere locatie

Jullix + 1 extender



draadloze verbinding beter dan -85dBm

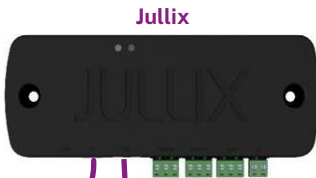


Situatie: omvormer andere locatie

Jullix + 1 extender



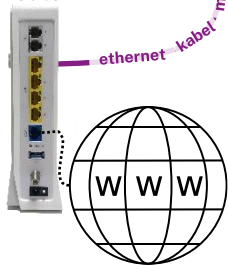
digitaal meter



Jullix

draadloze verbinding beter dan -85dBm

Router



ethernet kabel

max 90m

pt kabel max 1m



Zonnepanelen



Hybride omvormer



Extender

USB-C 5V

modbus kabel

max 100m



Voeding 5V (vb. Raspberry Pi)



EL0213: USB Y USB-C 5V



EL0210: RS232 USB-C 5V



thuisbatterij

Situatie: omvormer andere locatie

Jullix master + slave



digitaal meter



Zonnepanelen



Hybride omvormer



Jullix master



Jullix slave

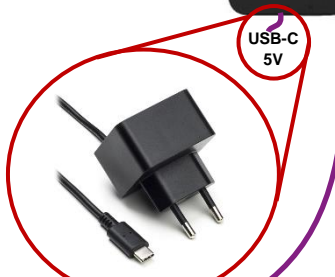
draadloze verbinding slechter dan -85dBm



Router



Jullix master en Jullix slave
hetzelfde netwerk



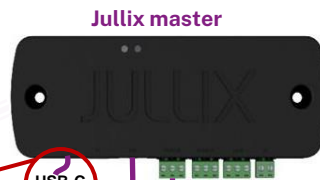
USB-C
5V



chuisbatterij

Situatie: omvormer andere locatie

Jullix slave + master



Router



Jullix master en Jullix slave
hetzelfde netwerk

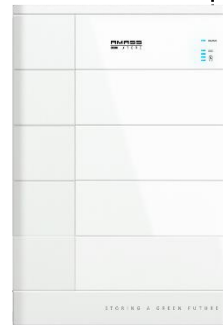
draadloze verbinding slechter dan -85dBm

draadloze verbinding

USB-C
5V

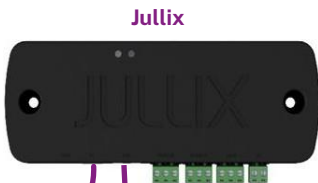
modbus kabel

chuisbatterij



Situatie: omvormer via netwerk

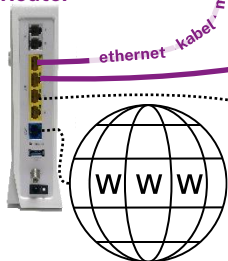
Jullix



Jullix en tcp client
hetzelfde netwerk



Router

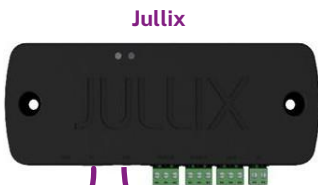


thuisbatterij



Situatie: omvormer via netwerk

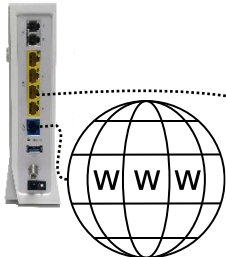
Jullix



Jullix en tcp client
hetzelfde netwerk



Router

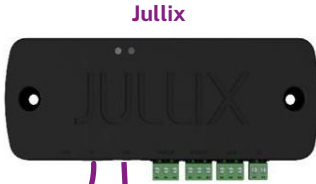


thuisbatterij

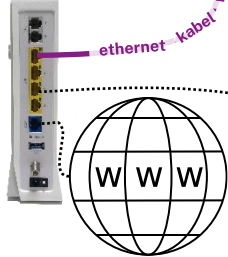


Situatie: omvormer via netwerk

Jullix



Router



Hybride omvormer



**Jullix en modbus client
verschillend netwerk**

thuisbatterij

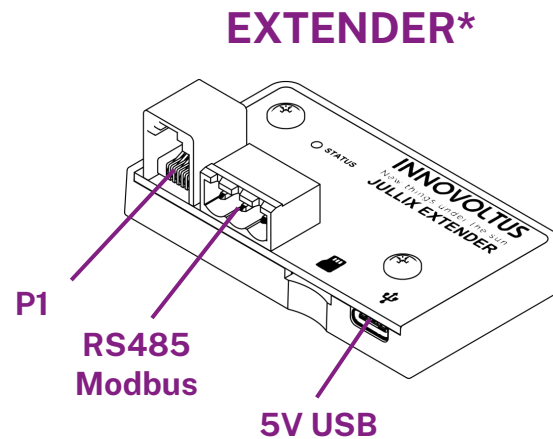
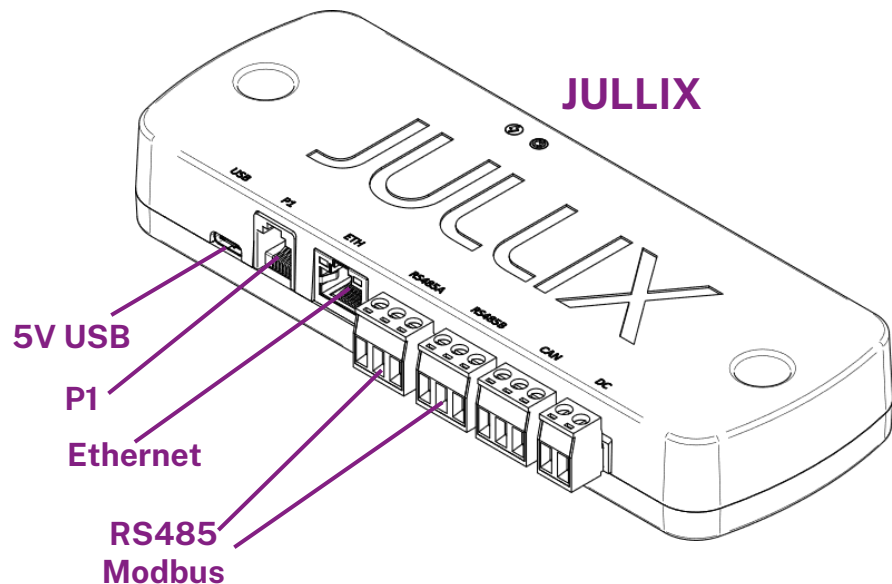


Aansluitingen

- Jullix tegen de muur monteren
- P1 poort verbinden met JULLIX (of EXTENDER) met meegeleverde kabel
- * eventueel 5V usb voeding aansluiten
- Netwerkkabel aan Jullix (kabel meegeleverd)
- Omvormers verbinden via modbus kabel(s) aan JULLIX (en/of EXTENDER)
- Omvormer configureren

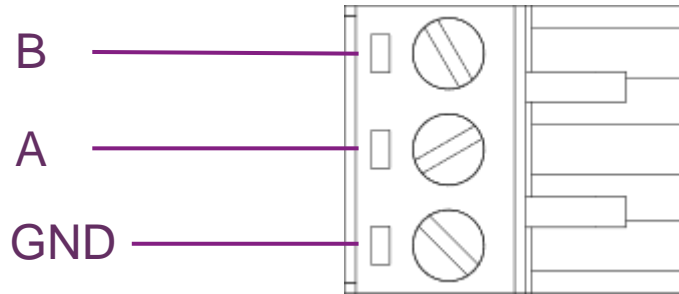
[https://wiki.jullix.be/
Installateurs > Omvormers](https://wiki.jullix.be/Installateurs%20Omvormers)
- Controle:
 - Jullix Power LED groen (na opstart)
 - Jullix Status LED

Aansluitingen



* optioneel

RS 485 (Modbus)

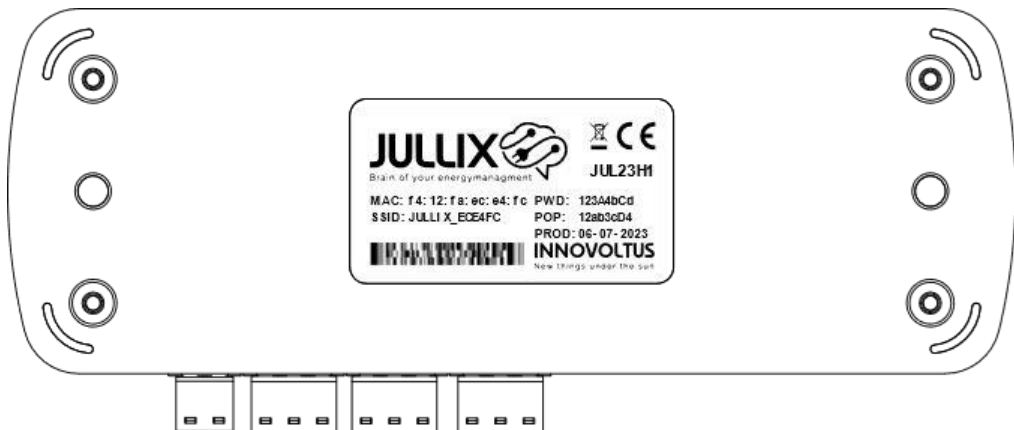


*GND aansluiten! ook aan omvormer

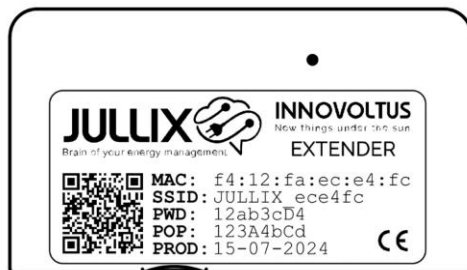
Omvormer aansluiting:

<https://wiki.jullix.be/>
Installateurs > Omvormers

JULLIX



EXTENDER*



* optioneel



Sticker bij Jullix

Configuratie modules

MAC-ID vb. f4:12:fa:ec:e4:fc

identificatie van het toestel

POP vb. 123A4bCd

Proof Of Possesion, eigendom bewijzen

SSID vb. JULLIC_ece4fc

Netwerknnaam (SSID) voor directe wifi verbinding

PWD vb. 12ab3cD4

Wachtwoord voor directe wifi verbinding

QR-code vb.



Automatisch verbinding maken met het directwifi netwerk van de module via smartphone

Laptop/smartphone connecteren met module

- Zoek via wifi naar het netwerk van de module, dit vind je op de sticker: vb JULLIX_ECE4FC
- Maak verbinding en geef het bijbehorende wachtwoord in PWD vb 12ab3cD4
- Je krijgt de melding dat deze verbinding geen verbinding heeft met het internet: dit is ok
- In de browser kies je het adres: <http://192.168.4.1>

- Je komt op de status pagina van de module terecht, die verschilt afhankelijk van de module
- In de menubalk kan je via **Config** naar de configuratie gaan

JULLIX statuspagina

The screenshot shows the JULLIX status page with the following modules and their statuses:

- DSMR**: Not connected
- DIRECT**: Using paircode: 717VYQ on channel 1. No devices are paired!
- INVERTER A**: Inverter not running
- INVERTER B**: Inverter not running
- SUNSPEC INVERTER**: Sunspec not running
- MODBUS TCP T**: Inverter not running
- MODBUS TCP U**: Inverter not running
- MODBUS TCP V**: Inverter not running
- MODBUS TCP W**: Inverter not running
- SYSTEM (f412fa919fd4)**: Firmware information: App: innovoltus-jullix-v2, Firmware version: 1.3.1, Build date: Mar 25 2024 16:46:00, SDK version: v4.4.2-dirty. Connection information: State: Connected, IP: 192.168.1.185, Speed: 100Mbps full.
- ETHERNET**: Connection information: State: Connected, IP: 192.168.1.185, Speed: 100Mbps full.

EXTENDER statuspagina

The screenshot shows the EXTENDER status page with the following modules and their statuses:

- INVERTER**: Inverter not running
- DSMR**: Not connected
- SYSTEM (f412fa685d58)**: Firmware information: App: durasun-jullix-v1, Firmware version: v1.0.1-dirty, Build date: Jun 22 2023 22:58:22, SDK version: v4.4.2.
- WIRELESS**: Not connected to other device. Please go to the Configuration tab to set this up.

Energiemanagement installeren

Wifi instellen (eigen JULLIX wifinetwerk)

Configuratie JULLIX

Step 1: Direct (Wireless & wired)

- **(1)** Channel:
het Wifi kanaal 1-13
=> **(1b)** Save and restart
Wifi verbinding vernieuwd
- **(2)** JULLIX = 'Master'
- De pair code **(3)**, belangrijk
om andere devices te
koppelen (EXTENDER).
Veranderd om het uur!

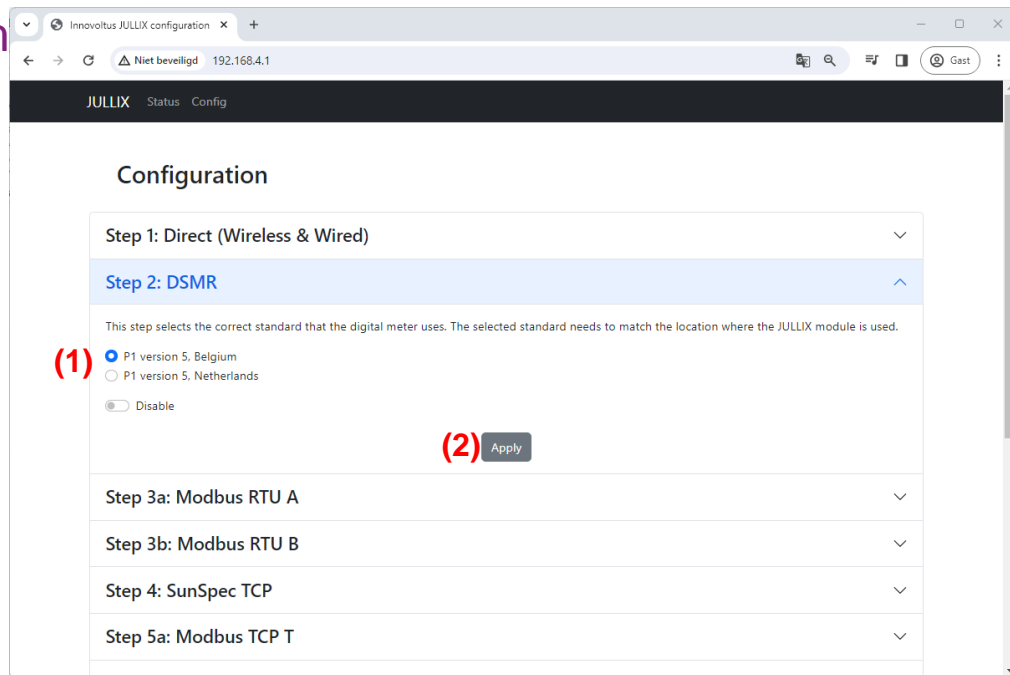
The screenshot shows a web browser window with the URL 192.168.4.1. The page title is 'JULLIX Status Config'. The main heading is 'Configuration'. Below it, a blue box indicates 'Step 1: Direct (Wireless & Wired)'. Under the 'Configuration' section, there is a 'Channel' input field with the value '1'. A red '(1)' is placed to the left of the input field. Below the input field is a 'Save and restart' button, with a red '(1b)' to its left. Further down, there are three radio buttons: 'Slave', 'Master', and 'Reset'. The 'Master' button is selected, and a red '(2)' is placed to the left of the 'Slave' button. Below the radio buttons, there is a note: 'Write down both the address and the paircode. This information is needed when configuring a slave JULLIX module.' At the bottom, the device information is displayed: 'Device JULLIX_919FD4 - F412FA919FD4' and 'The pair code is QSCEN6', with a red '(3)' placed below the pair code.

Energiemanagement installeren

Digitale meter protocol instellen*

Step 2: DSMR

- **(1)** P1 version 5, Belgium
- **(2)** Apply



*Als digitale meter is aangesloten aan de JULLIX

Energiemanagement installeren

Modbus communicatie instellen*

Configuratie JULLIX

Step 3(a/b): Modbus RTU (A/B) instellen:

- (1) 'Type' apparaat, (2) 'Group' het merk, (3) 'Subgroup' reeks, (4) omvormer model
- Modbus adres= 'Configure MODBUS Station' (5)
- activeer met Apply (6)

Step 3a: Modbus RTU A

Current configuration:

No inverter configured
Station address : 1

Change Device

In this step the communication between the inverter, charger or other devices and the JULLIX module is configured. Select the correct inverter from the list below and press the "Apply" button.

Type
1 Hybrid

Group
2 Sofar

Subgroup
3 HYD EP

Model
4 Sofar HYD 5000-EP

Configure MODBUS station
5 1

6 Apply Reset

Config saved!

*Als er een modbus apparaat is aangesloten aan de JULLIX

Energiemanagement installeren

SunSpec TCP communicatie instellen*

Step 4: SunSpec TCP instellen:

- **(1)** IP-adress van de omvormer (bij voorkeur een vast IP-adres)
- **(2)** Port communicatie poort van de omvormer
- **(3)** Modbus address van de omvormer
- activeer met Apply **(4)**

The screenshot shows a web browser window with the URL 192.168.4.1. The page is titled 'Step 4: SunSpec TCP' and contains the following fields:

- IP-address: 192.168.1.123 (marked with a red '1')
- Port: 502 (marked with a red '2')
- Modbus address: 1 (marked with a red '3')
- Apply button (marked with a red '4')

Other steps visible in the interface include Step 3a: Modbus RTU A, Step 3b: Modbus RTU B, Step 5a: Modbus TCP T, Step 5b: Modbus TCP U, and Step 5c: Modbus TCP V.

*Als er een SunSpec TCP apparaat is verbonden in het netwerk

Energiemanagement installeren

EXTENDER verbinden met de JULLIX*

Config. EXTENDER

Step 1: Wireless

- **(1)** Channel: Hetzelfde kanaal als de JULLIX master instellen!
(Wifi kanaal 1-13)
=> **(1b)** save and restart
- **(2)** Jullix aanduiden
- **(3)** Pair code: van Jullix
- **(4)** Pair device

The screenshot shows the 'Durasun JULLIX configuration' web interface. The browser address bar shows '192.168.4.1'. The page title is 'Step 1: Wireless'. The 'Configuration' section has a 'Channel' dropdown set to '1'. Below it are 'Save and restart' and 'Reset' buttons. A message states: 'Below you can make a connection with a JULLIX module in master mode. Select the correct address and enter the code to pair the two devices.' The 'Detected modules' section shows two options: 'JULLIX_4006E4 - F412FA4006E4 -63 dBm' (unselected) and 'JULLIX_ED8EFC - F412FAED8EFC -5 dBm' (selected). The 'Pair code' field contains 'XDSSY1'. A 'Pair device' button is visible. A yellow banner at the bottom says 'Pairing to master... please wait!'. Below the configuration section are links for 'Step 2: DSMR' and 'Step 3: Inverter'. An inset window shows the 'Successfully paired to master' confirmation message.

*Als er een EXTENDER gebruikt is

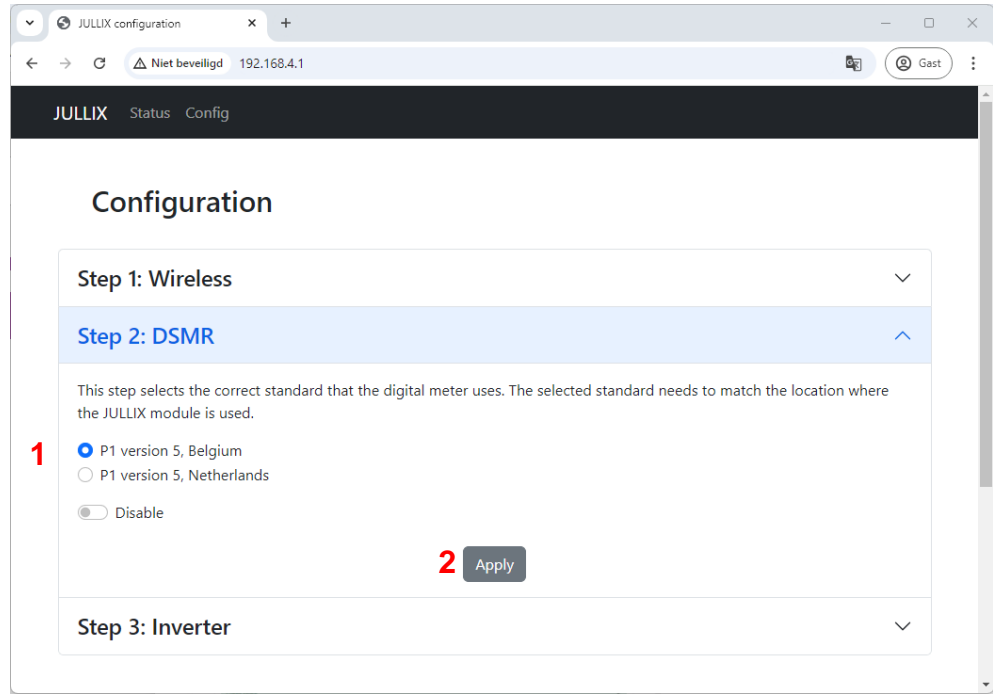
Energiemanagement installeren

Digitale meter protocol instellen*

Config. EXTENDER

Step 2: DSMR

- **(1)** P1 version 5, Belgium
- **(2)** Apply



*Als digitale meter is aangesloten aan de EXTENDER

Energiemanagement installeren

Modbus communicatie instellen*

Config. EXTENDER

Step 3: Modbus RTU instellen:

- (1) 'Type' apparaat, (2) 'Group' het merk, (3) 'Subgroup' reeks, (4) Model omvormer model
- Modbus adres= 'Configure MODBUS Station' (5)
- activeer met Apply (6)

Step 3: Inverter

Current configuration:

No device configured
Station address : 1

Change Device

In this step the communication between the inverter, charger or other devices and the JULLIX module is configured. Select the correct device from the list below and press the "Apply" button.

Type
1 Hybrid

Group
2 Sofar

Subgroup
3 HYD EP

Model
4 Sofar HYD 5000-EP

5 Configure MODBUS station
1

6 Apply Reset

*Als er een modbus apparaat is aangesloten aan de EXTENDER

Energiemanagement installeren

Klant-installatie instellen

Portaal configuratie

Bij profiel (1) kies je Installatiebeheer (2)

The screenshot displays the JULLIX energy management portal dashboard. The top navigation bar includes the JULLIX logo, a grid icon, a line graph icon, a chat icon, a camera icon, a document icon, a plug icon, and a settings icon. The user profile icon is highlighted with a red '1'. A dropdown menu is open, showing options: 'Profiel', 'Apparatenbeheer', 'Installatiebeheer' (highlighted with a red '2'), 'Klant ondersteuning', and 'Uitloggen'. The main dashboard area is divided into several sections: 'Energiebesparing' (Energy saving) showing a saving of €101,65; 'Energiestroom' (Energy flow) showing a central diagram with various energy sources and consumers; 'Zelfverbruik' (Self-consumption) showing a pie chart; 'Energiestatistieken' (Energy statistics) showing a table of energy usage for 'Vandaag' and 'Gisteren'; and 'Support' at the bottom. The INNOVOLTUS logo is visible at the bottom center of the dashboard.

| Dag | Maand | Jaar |
|----------------|------------------|------------------|
| Vandaag | | Gisteren |
| 🏠 | 26.4 kWh | 35.6 kWh |
| 🔌 | 3.69 kWh | 27.1 kWh |
| 🚗 | 1.39 kWh | 7.15 kWh |
| 🏡 | 45.0 kWh | 47.0 kWh |
| 🎵 | 10.1 kWh | 10.5 kWh |
| 📺 | 1.00 kWh | 10.2 kWh |
| 📺 | 11.8 kWh | 31.1 kWh |
| 🔌 | 0 m ² | 0 m ² |
| 🔌 | 0 m ² | 0 m ² |

Energiemanagement installeren

Klant-installatie instellen

Portaal configuratie

Je ziet jou installaties, met [+] **1** maak je een nieuwe installatie aan.

The screenshot shows the JULLIX portal interface. The top navigation bar is purple and contains the JULLIX logo, a search icon, and the user name 'Ludwig Installateur'. Below the navigation bar, there is a sidebar with menu items: 'Profil', 'Apparatenbeheer', 'Installatiebeheer' (highlighted), and 'Klant ondersteuning'. The main content area is titled 'Installatiebeheer' and features a search bar with a red '1' and a plus sign icon. Below the search bar, there is a list of installations. The first installation is 'DEMO installatie' by 'Ludwig Theunis'. Other installations include 'Safar HYD EP + 2*Aoboet LFP 5.8', 'Huawei SUN2000-10KTL-M1 10kW, 5.85kW PV (ZO), Huawei LUNA2000 10kWh batterij, 3f 20A aansluiting', 'Safar HYD KTL + Aoboet LFP 2.5', 'elecgator - NO308' by 'Kantoor elecgator bv', 'Safar HYD ES + 2*Aoboet LFP 5000', 'Safar HYD ES + 2*Aoboet LFP 5.8', 'SOFAR HYD 8KTL-3PH', and 'HYD 10KTL'. Each installation entry includes a location pin icon, a name, and three action icons (grid, gear, and list).

Energiemanagement installeren

Klant-installatie instellen

Je vult een naam (1) en adres (2) in. Eventueel gebruiker (e-mail) (3)
(3) Bewaren

The screenshot shows the 'Installatie instellingen' (Installation settings) dialog box in the JULLIX portal. The dialog is overlaid on a list of installations. The fields are as follows:

- 1** Naam: Joske Vermeulen
- 2** Adres: Trammezandje 122
- Gebruikers: 3 Gebruiker per e-mail toevoegen +
- 4** Bewaren (highlighted button)

Other fields include Beschrijving, Stad (Schoten), Postcode (2170), and Land (Belgie). A note at the bottom explains the EAN code: 'Vul hier de 18-cijferige EAN-code in. De EAN-code bestaat uit 18 cijfers en begint met 54. Je vindt je EAN-code op de energiefactuur van je leverancier.'

Energiemanagement installeren

Klant-installatie instellen: Tarief

Portaal configuratie

Bij Algemeen (1), Tarief (2) kies je het Distributienettarief (3),

The screenshot displays the JULLIX configuration interface. The top navigation bar includes the JULLIX logo and a user profile 'Ludwig Installateur'. The breadcrumb trail shows 'Demo opstelling' > 'Configuratie' > 'Algemeen' > 'Tarief'. The left sidebar contains a menu with 'Algemeen' (1) and 'Tarief' (2) highlighted. The main content area is titled 'Tarief' and features a 'Distributienettarief' dropdown menu (3) with the following options: 'Please select', 'Fluvius Limburg', 'Fluvius Antwerpen' (selected), 'Fluvius West', 'Gaselwest', 'Imewo', 'Intergem', and 'tarief opsaan'. The INNOVOLTUS logo and tagline 'New things under the sun' are visible at the bottom left.

Energiemanagement installeren

Klant-installatie instellen: Tarief

Portaal configuratie

<https://www.synergrid.be/nl/over-de-netten/dnb-in-uw-gemeente>

The screenshot shows the Synergrid website interface. At the top left is the Synergrid logo with the tagline 'Voice of the networks'. To the right are links for 'LOGIN', 'CONTACT', and a 'MENU' button. Below the navigation is a large banner image of a utility worker on a lift. The main content area features a heading '■ DNB in uw gemeente' followed by a paragraph of text explaining the service and a form field labeled 'Typ hier uw postcode of de naam van uw gemeente.' Below this are two columns of information: 'Elektriciteit' and 'Gas'. Each column lists 'Distributenetbeheerder' (Fluus Antwerpen) and 'Netoperator' (Fluus). The footer contains the Synergrid address, social media icons, language options (FR, NL), and copyright information.

Energiemanagement installeren

Klant-installatie instellen: Tarief

Portaal configuratie

Bij Energietarief (1) het tarief van de energieleverancier

The screenshot displays the JULLIX configuration portal interface. The main content area is titled 'Tarief' and contains two sections: 'Distributenetarief' (Distribution rate) with a dropdown menu showing 'Fluvius Antwerpen', and 'Energietarief' (Energy rate) with a dropdown menu. The 'Energietarief' dropdown is open, showing a list of options: 'Please select', 'Manueel Vast/Variable', 'ANWB energy', 'Engie Dynamic', 'Eneco Zon & Wind Dynamisch', 'Frank Energie Stroom Dynamisch', and 'Energie.be Dynamisch'. A red '1' is placed to the left of the 'Manueel Vast/Variable' option, indicating it is the selected or recommended option. The sidebar on the left contains navigation links: 'EMS instellingen', 'Laadpaal', 'Slim stopcontact', 'Omvormer', 'Apparaten', 'Algemeen', 'Installatie', 'Tarief', 'Gebruikers', and 'Abonnement'. The top navigation bar includes the JULLIX logo, a settings icon, and the user name 'Ludwig Installateur'.

Energiemanagement installeren

Klant-installatie instellen: Tarief

Bij Manueel vast/variabel geef je de details in, vervolgens klik je op[+] (1)
(2) Opslaan

Tarief

Distributenetarief
Fluvis Antwerpen

Energietarief
Manueel Vast/Variabel

| Begin datum | Piekuren [€/kWh] | Daluren [€/kWh] | Injectie piekuren [€/kWh] | Injectie Daluren [€/kWh] | Vast [€/maand] |
|-------------|------------------|-----------------|---------------------------|--------------------------|----------------|
| 01/09/2024 | 0,15 | 0,15 | 0,03 | 0,03 | 7 |

2 **Tarief opslaan** Niet-opgeslagen wijzigingen

Energiemanagement installeren

Klant-installatie instellen: Apparaten

Claim de Jullix en Extenders bij Apparaten **(1)** geef MAC-ID en POP-code **(2)** in, **[+]****(3)** om de Jullix of extender te claimen

The screenshot shows the 'Apparaten' (Devices) configuration page in the Jullix portal. The page has a purple header with the Jullix logo and navigation icons. A left sidebar contains menu items: EMS instellingen, Laadpaal, Slim stopcontact, Omvormer, Apparaten (highlighted with a red '1'), and Algemeen. The main content area is titled 'Apparaten' and features a table with columns 'Type', 'id', and 'Naam'. Below the table, a message states 'Geen apparaten gevonden' (No devices found). There are two sections: 'Voeg apparaat toe' (Add device) with a 'Please select' dropdown and a '+' button, and 'Claim apparaat' (Claim device) with two input fields: 'MAC-ID' (containing 'F4:12:FA:ED:6F:09' and marked with a red '2') and 'POP-code' (containing '123A4BcD' and marked with a red '3'). A red '+' button is next to the POP-code field.

Energiemanagement installeren

Klant-installatie instellen: Apparaten

Als MAC-ID en POP-code overeenkomen wordt het apparaat geclaimd **(1)**. Via het pop-up venster **(2)** voeg je apparaat nu ook aan de installatie.

The screenshot displays the JULLIX portal configuration interface. The main content area is titled 'Apparaten' and shows a list of devices. A pop-up window is open, asking 'Apparaat geclaimd' and 'Wilt u dit apparaat toevoegen aan de installatie?'. The 'Ja' button is highlighted with a red '2'. Below the pop-up, a notification bar at the bottom of the screen shows 'Apparaat geclaimd!' with a red '1' next to it. The interface includes a sidebar with navigation options like 'EMS instellingen', 'Laadpaal', 'Slim stopcontact', 'Omvormer', 'Apparaten', and 'Algemeen'. The top navigation bar shows 'Demo opstelling', 'Configuratie', and 'Apparaten'. The bottom of the screen features the INNOVOLTUS logo and the tagline 'New things under the sun'.

Energiemanagement installeren

Klant-installatie instellen: Apparaten

Het apparaat wordt toegevoegd in de lijst **(1)**
Zorg ervoor dat de Jullix Master als Gateway**(2)** is ingesteld met de knop

The screenshot shows the Jullix configuration interface. The top navigation bar includes 'Demo opstelling', 'Configuratie', and 'Apparaten'. The left sidebar lists various configuration options, with 'Apparaten' selected. The main content area is titled 'Apparaten' and contains a table with the following data:

| Type | id | Naam | Status | Acties |
|--------|-------------------|-------------------|--------|-------------------------|
| [Icon] | F4:12:FA:ED:6F:08 | Test Elecgtator 1 | Online | [Gear] [Stop] [Refresh] |

Below the table, there are two sections: 'Voeg apparaat toe' with a 'Please select' dropdown and a '+' button, and 'Claim apparaat' with 'MAC-ID' and 'POP-code' input fields and a '+' button.

Energiemanagement installeren

Klant-installatie instellen: Omvormer

Portaal configuratie

Bij Omvormer (1), Instellingen (2) stel je de batterijcapaciteit (3) en de batterijkost (4) in => Bewaar configuratie (5)

The screenshot shows the JULLIX web portal interface. On the left, a navigation menu includes 'Omvormer' (1) and 'Instellingen' (2). The main content area is titled 'Omvormers' and displays configuration for a 'Sofar ESI 5K-S1' inverter. The settings include:

- Maximaal omvormervermogen: 5 kW
- Maximaal batterij vermogen: 5 kW
- Batterijcapaciteit: 3 5 kWh
- Batterijkost per kWh: 4 0,08 €

At the bottom, there is a '5 Bewaar configuratie' button and a 'Niet-opgeslagen wijzigingen' message.

Energiemanagement installeren

Klant-installatie instellen: Zonnepanelen

Portaal configuratie

Bij Omvormer (1), Zonnepanelen (2) kan je groepen van zonnepanelen toevoegen [+] (3) => Bewaar configuratie (4)

The screenshot shows the JULLIX configuration portal. The sidebar on the left contains the following items: EMS instellingen, Laadpaal, Slim stopcontact, Omvormer (1), Instellingen, Zonnepanelen (2), Apparaten, and Algemeen. The main content area is titled 'Zonnepanelen' and contains a table with the following columns: Aantal panelen, Vermogen, Azimut, and Hellingshoek. The table has one row with values: 4, 400 W, 180°, and 25°. Below the table, there are four input fields with values: 10, 170, 150, and 40. A red '3' and a '+' sign are next to the last input field. A red '4' is next to a 'Bewaren' button below the input fields. The JULLIX logo and 'Ludwig Installateur' are visible in the top right corner. The INNOVOLTUS logo and 'New things under the sun' are visible in the bottom left corner.

| Aantal panelen | Vermogen | Azimut | Hellingshoek |
|----------------|----------|--------|--------------|
| 4 | 400 W | 180° | 25° |

10 170 150 40 3 +

4 Bewaren

Energiemanagement installeren

Klant-installatie instellen: EMS instellingen

Bij EMS instellingen (1), Sturing (2) stel je de regelparameters in:
De Minimale Soc (4) zoals de omvormer/BMS is ingesteld

The screenshot shows the JULLIX web portal configuration interface. The top navigation bar includes the JULLIX logo, a home icon, and the user name 'Ludwig Installateur'. The breadcrumb trail is 'Demo opstelling > Configuratie > EMS instellingen > Sturing'. The left sidebar menu contains the following items: 1. EMS instellingen (highlighted with a red '1'), 2. Sturing (highlighted with a red '2'), Optimizer, Laadpaal, Slim stopcontact, Omvormer, Apparaten, and Algemeen. The main content area is titled 'Sturing' and contains a 'Basisinstellingen' section with the following fields: 3. 'Gewenste verbruikspiek' (Desired consumption peak) set to 2,5 kW; 4. 'Minimale SoC' (Minimum SoC) set to 10%; 5. 'Buffer piekverbruik' (Buffer peak consumption) set to 5%. A 'Bewaren' (Save) button is highlighted with a red '6'.

Energiemanagement installeren

Klant-installatie instellen: Eigenaar

Portaal configuratie

Bij Algemeen (1), Gebruikers (2) voeg je het klant e-mailadres (3) toe [+] (4) via Bewaren (5) wordt die toegevoegd en wordt er een e-mail verzonden.

The screenshot displays the JULLIX portal configuration interface. The top navigation bar includes the JULLIX logo and the text 'Het brein van jouw energiemangement'. The main navigation menu on the left lists various configuration options: EMS instellingen, Laadpaal, Slim stopcontact, Omvormer, Apparaten, Algemeen (1), Installatie, Tarief, Gebruikers (2), and Abonnement. The 'Algemeen' and 'Gebruikers' options are highlighted in purple. The 'Gebruikers' section is active, showing a list of users. The first user is 'Ludwig Installateur' with the email address 'ludwig.theunis@innovoltus.nl'. Below this, there is a text input field containing 'email@gmail.com' (3) and a plus sign (+) (4) to add a new user. A 'Bewaren' (5) button is located below the input field. The bottom of the page features the INNOVOLTUS logo and the tagline 'New things under the sun'.

Energiemanagement installeren

Klant-installatie instellen: Eigenaar

Portaal configuratie

Via menu  (1) maak je de klant eigenaar  (2), Bewaren (3) om de wijzigingen op te slaan. Zolang de klant geen wachtwoord heeft ingesteld: 

JULLIX

Demo opstelling Configuratie Algemeen Gebruikers

EMS instellingen
Laadpaal
Slim stopcontact
Omvormer
Apparaten
Algemeen
Installatie
Tarief
Gebruikers
Abonnement

Gebruikers

| | | |
|--------------------------------|-----------------------------|--|
| Ludwig Installateur | ludwig.theunis@innovoltus.c | |
| ludwig.the | | |
| Gebruiker per e-mail toevoegen | | |

2 Instellen als eigenaar
1 Email opnieuw verzenden
Verwijderen

3 Bewaren

Gebruikers

| | | |
|--------------------------------|-----------------------------|--|
| Ludwig Installateur | ludwig.theunis@innovoltus.c | |
| ludwig.the | | |
| Gebruiker per e-mail toevoegen | | |

Bewaren

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Energiemanagement installeren




Controle signaal sterkte

Draadloze verbinding

Op de JULLIX (master) kan je controleren welke devices verbonden zijn, welk wifi kanaal er gebruikt is, en de kwaliteit van de draadloze verbindingen

Using paircode **0IU76J** on channel **1** **DIRECT**

Paired to

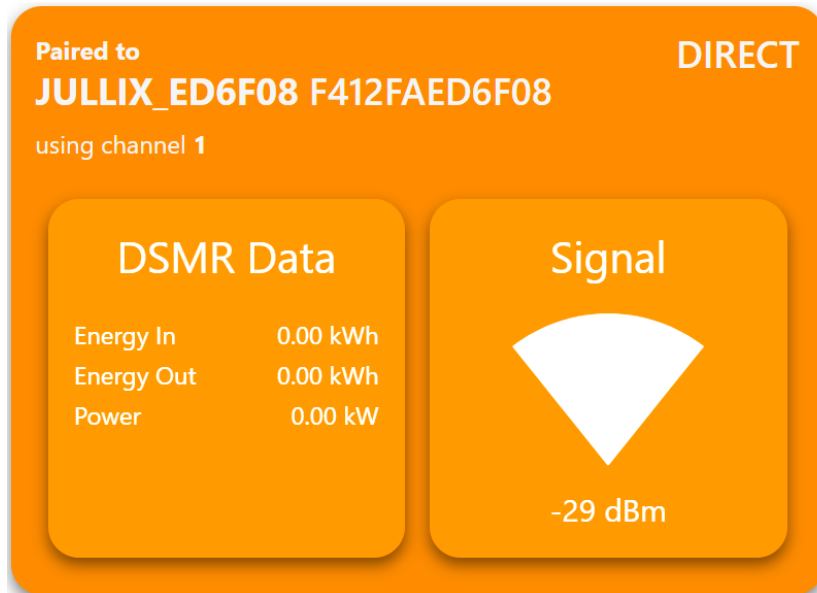
| | | | |
|--|--------------|------|------------|
|  MUON_685D78 | F412FA685D78 | Muon | -35 |
| dBm | | | |
|  NUO_7760F8 | 3CE90E7760F8 | Nuo | -69 |
| dBm | | | |
|  NUO_772F20 | 3CE90E772F20 | Nuo | -80 |
| dBm | | | |

Energiemanagement installeren

Controle signaal sterkte

Draadloze verbinding

Op de statuspagina van de EXTENDER kan je de verbindingsskwaliteit controleren. voor een betrouwbare verbinding moet het signaal $> -85\text{dBm}$.



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Zoeken

| GEBRUIKERSHANDLEIDINGEN

| PRODUCT HANDLEIDINGEN

| **INSTALLATEURS**

- » [Voorbereiding Jullix EMS installeren](#)
- » [Omvormers](#)
- » [Laadpalen](#)
- » [Energimeters](#)
- » [Portaal aanmaken](#)
- » [Checklist](#)
- » [Release notes](#)

[Opleiding voor installateurs: presentatie.](#)

| FAQ

| Site-hulpmiddelen

| Gebruikershulpmiddelen

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