

Instructions for integrating
AC•THOR[®] or AC ELWA[®]-E
into SMA Sunny Home Manager (SHM)



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1. Default settings on AC•THOR or AC ELWA-E

Before commissioning, it is essential that you read the assembly instructions that accompany the device, as well as the operating instructions available on line.

Find the AC•THOR operation manual [here](#).

Find the AC ELWA-E operation manual [here](#).

AC•THOR Control setting for SMA

With the AC•THOR, "SMA Home Manager" must be selected either on the display **or** in the web interface for the control type. Further settings are **not** required for communication with SMA.



or

Control type

Signal source:
ACTHOR Number >1: only "Slave" selectable

SMA Home Manager

Save

AC ELWA-E Control setting for SMA

With the AC ELWA-E, "SMA Home Manager" must be selected for the control type in the web interface. Further settings are **not** required for communication with SMA.

Control Type / Ansteuerungs-Typ

Signal source: / Ansteuerungs-Typ:
ELWA Number >1: only "Slave" selectable
ELWA Nummer >1: nur "Slave" einstellbar

SMA Home Manager

Save / Speichern



TIP: This setting can only be made if the AC ELWA-E has the factory preset device number "1". Even if several devices are controlled by SMA, it is not necessary to change the device numbers! See heading "Basic settings" also on the "Setup" page.

Basic Settings / Grundeinstellungen

Number: / Nummer: 1


Fusetype: / Absicherung: 16 A

Save / Speichern

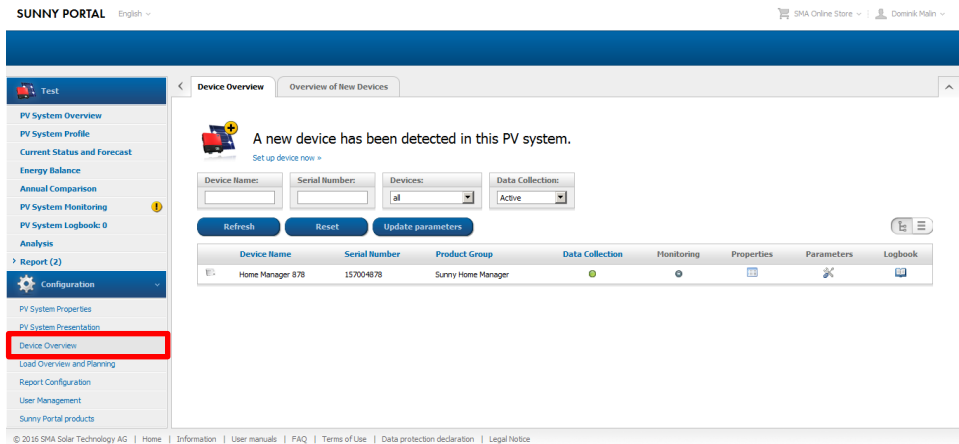


TIP: If the Sunny Home Manager does not find the device immediately, a restart after saving the control type could help!

2. Integrating device in the Sunny Home Manager (SHM)

 The SHM must already be registered in the SMA portal!

If – Configuration – Device overview is selected in the SMA portal, only the SHM will be displayed at first. AC•THOR or AC ELWA-E will not appear to start with. Once the configuration process is complete, it will appear in the lower-level menu item – Load overview and planning.




The screenshot shows the Sunny Portal interface. The left sidebar has 'Device Overview' highlighted with a red box. The main content area is titled 'Device Overview' and 'Overview of New Devices'. A message states: 'A new device has been detected in this PV system. Set up device now'. Below this are input fields for 'Device Name', 'Serial Number', 'Devices' (set to 'all'), and 'Data Collection' (set to 'Active'). There are 'Refresh', 'Reset', and 'Update parameters' buttons. A table below lists the detected device:

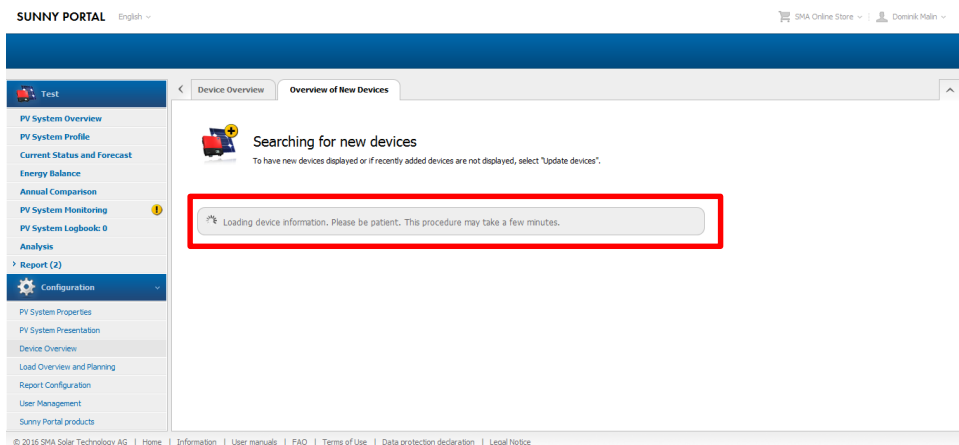
Device Name	Serial Number	Product Group	Data Collection	Monitoring	Properties	Parameters	Logbook
Home Manager 878	157004878	Sunny Home Manager					

Searching for and adding AC•THOR or AC ELWA-E in the SHM

Update the list under – Configuration – Device overview – Overview of New Devices – “Refresh devices”.

This process may take several minutes.

 Admin rights are required for this setting!



The screenshot shows the Sunny Portal interface. The left sidebar has 'Device Overview' highlighted with a red box. The main content area is titled 'Device Overview' and 'Overview of New Devices'. A message states: 'Searching for new devices. To have new devices displayed or if recently added devices are not displayed, select "Update devices"'. Below this is a progress bar with the text: 'Loading device information. Please be patient. This procedure may take a few minutes.'

AC•THOR or AC ELWA-E will appear as a "Smart Appliance" together with its MAC-address - click "+" to configure.

SUNNY PORTAL English ▾ SMA Online Store ▾ Domink Main ▾

Test

Device Overview Overview of new Devices

A new device has been detected in this PV system.

With which configuration would you like to add the new device to this Sunny Portal PV system?

- As a PV System Extension (Additional Device)**
(configuration assistant opens)
 - Edit the device name
 - Adjust generator power
- As a Replacement Device**
(configuration assistant opens)
 - Before starting the configuration wizard, you must deactivate the data acceptance of the device to be replaced.
 - Select the device to be replaced
 - Transfer data to the replacement device

Important information: Incorrect allocation of new devices may lead to faulty display.

Device	Product Group	Serial Number	Configuration
	Smart Appliance	986035C00001	

Refresh devices

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Configuration - Step 1

Product type will be used automatically in combination with the last three characters of the MAC address as a device name. The MAC address can also be seen on the type plate.

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1 2 3

Device Name Device Characteristics Summary

Smart Appliance - PV System Extension

Enter the desired name of the device. You can also select and edit one of the suggestions.

Device Name:

Insert Suggestion:

Use product name -> AC ELWA-E
Use serial number -> 986035C00001
Product name + serial number -> AC ELWA-E 001

* Required field

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Configuration - Step 2

In order for AC•THOR or AC ELWA-E to simply make use of surplus energy that can no longer be used by other loads, my-PV recommends the following settings:

- Set the priority of the load to a very low
- Switch on the load depending on the proportion of PV energy
- Move the "Optional energy demand" slide as required

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1 2 3
Device Name Device Characteristics Summary

Smart Appliance - PV System Extension

ON
SMART
Serial Number: 986035C00001

Priority of the load: very low

Optional energy demand: Load will be switched on depending on:
 Proportion of the PV energy
 Maximum permitted energy costs

External energy supply: 0 %
PV power generation: 100 %

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Configuration - Step 3

These settings are displayed once more for checking.

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1 2 3
Device Name Device Characteristics Summary

Smart Appliance - PV System Extension

ON
SMART
Serial Number: 986035C00001

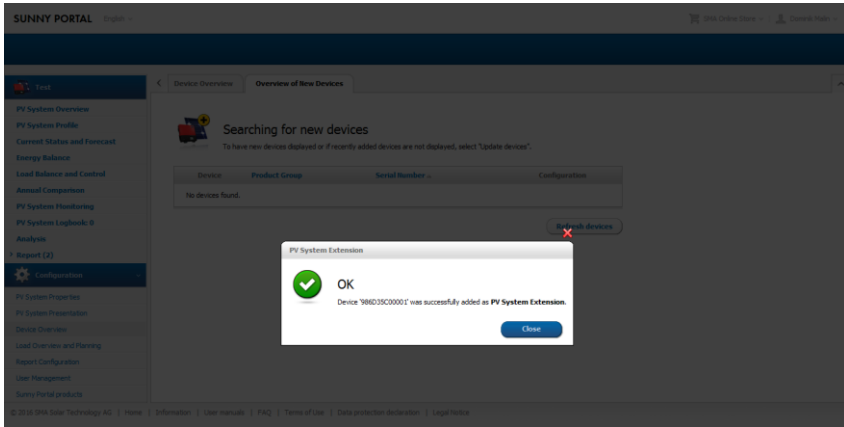
If the data is correct, select "Finish".

Device Name: AC ELWA-E 001
Priority of the load: very low
Load will be switched on depending on: Proportion of the PV energy
External energy supply: 0 %
PV power generation: 100 %

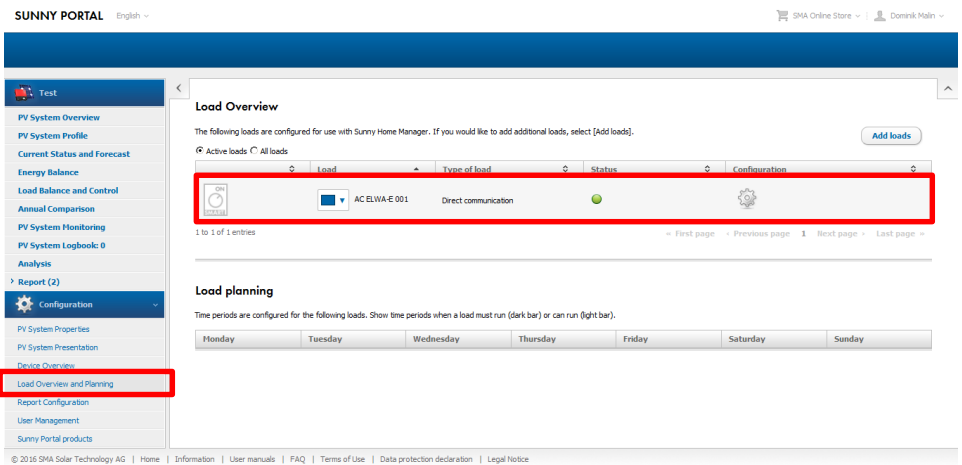
Back Cancel Finish

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Click the "Finish" button to complete the addition of the new system extension. This is confirmed with a message.



Once the configuration is complete, AC•THOR or AC ELWA-E will appear in the menu item – Load overview and planning.



The load characteristics of the new “Smart Appliance” can be displayed again at any time.

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Test

PV System Overview
PV System Profile
Current Status and Forecast
Energy Balance
Load Balance and Control
Annual Comparison
PV System Monitoring
PV System Logbook 0
Analysis
Report (2)

Configuration

PV System Properties
PV System Presentation
Device Overview
Load Overview and Planning
Report Configuration
User Management
Sunny Portal products

Load Overview and Planning AC ELWA-E 001

Load characteristics

Data Collection:	<input checked="" type="checkbox"/> Active
Name of Load:	AC ELWA-E 001
Product Group:	AC ELWA-E
Serial Number:	986035C0001
Power Consumption:	3000 W
Priority of the load:	low <input type="range"/> high
Optional energy demand:	<p>Load will be switched on depending on:</p> <p><input checked="" type="radio"/> Proportion of the PV energy <input type="radio"/> Maximum permitted energy costs</p> <p>External energy supply: 0 % PV power generation: 100 %</p>
Load icon:	
Load color:	<input type="color" value="#0000FF"/>

Save Cancel Delete Upload load icon

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In the SHM AC•THOR or AC ELWA-E are not managed via time windows as is usually the case with wireless sockets for example!

Periods in which hot water securing must be boosted are specified in AC•THOR or AC ELWA-E settings directly. (see respective operating instructions on www.my-pv.com)

Bear in mind the optimization target settings within the SHM!

The factory setting of the SHM for the payment settings has an optimisation target of “economical”. In this case, my-PV recommends changing the optimisation target to “ecological”! Readjust this under – Configuration – PV system properties - Parameters.

Optimization Target

The optimization target indicates whether the Sunny Home Manager should prioritize ecological or economical factors for load management. If you select “ecological” as the optimization target, the Sunny Home Manager calculates the solution which uses the greatest self-consumption. Greater self-consumption conserves the environment because there is no energy loss caused by the transport of current through the power distribution grid. If you select the “economical” optimization target, the Sunny Home Manager calculates the most financially rewarding control of the loads, taking into consideration the feed-in and self-consumption tariffs. In certain cases, it may be more economical to feed the PV electricity into the power distribution grid and to operate the individual loads at night using electricity purchased from the grid.

Optimization Target

ecological economical


3. AC•THOR or AC ELWA-E with SHM and battery

my-PV recommends prioritising the use of excess energy for charging the battery. Only once the battery has finished charging AC•THOR or AC ELWA-E should start generating heat. This is achieved by making the following setting:

- Activate "Storage management via the Home Manager"
- Activate "Charging of the battery prior to optional loads"

Device Overview	Device: [REDACTED]	Parameters
Device Characteristics		
Device Class:	Sunny Home Manager	
Product Group:	Sunny Home Manager 2.0	
Serial Number:	[REDACTED]	
Manufacturer:	SMA Solar Technology AG	
Device Name:	Home Manager [REDACTED]	
Description:		
Data Request Interval:	automatic	
Time Zone:	(UTC+01:00) Amsterdam, Berlin, Bern, Niestetal, Rome, Stockholm	
PV System Password:	*****	
Automatic updates:	<input checked="" type="checkbox"/> Sunny Home Manager <input checked="" type="checkbox"/> PV system devices	
SMA SMART HOME Settings		
EEBUS protocol:	<input checked="" type="checkbox"/>	
Storage management via the Home Manager:	<input checked="" type="checkbox"/>	
Charging of battery prior to optional loads:	<input checked="" type="checkbox"/>	

Once the battery is fully charged, AC•THOR or AC ELWA-E are only then used when no other consumer has a higher priority!

 If the excess PV power is greater than the maximum charging capacity of the battery, generation of heat can simultaneously happen with battery charge!

4. Control multiple devices with the SHM

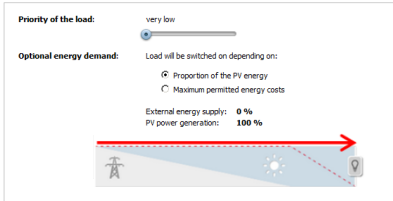


The adaptation of the internal multi-settings for the operation of several devices is **not required** when controlled by the SMA SHM!

Since the SHM actively controls loads like AC•THOR or AC ELWA-E, it is not necessary to configure one device as master and the others as slaves. All devices continue to have the factory pre-set device number 1.

5. Settings for systems with zero feed-in

For systems with zero export to the power-grid the settings have to be made as follows.



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Subject to change.

MYPV