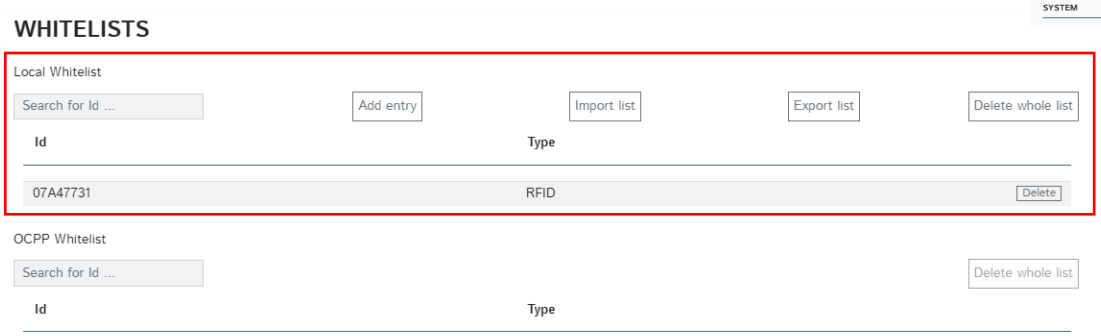
INSTRUCTIONS FOR WEB INTERFACE

(If you click on your particular question, you will be directed to the appropriate article)

HOW CAN I ADD OR DELETE RFID CARDS/BADGES?

First of all, establish a connection with the station. See How can I establish a connection with the charging station?

Next, click on the WHITELISTS item in the main menu on the left.
The following screen then appears:

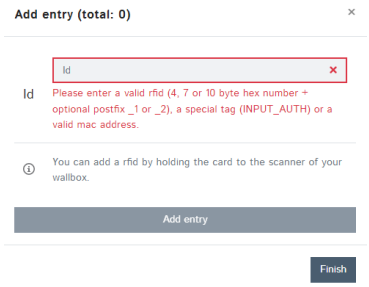


Only the framed part is of relevance for you. There, you can see all the RFID cards and RFID badges that are registered at your station. The example shows the two RFID cards which are supplied free of charge with the system and already pre-programmed.

RFID compatibility
Currently, all MIFARE variants are supported in version 5.20.4.

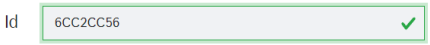
Add single card/badge

If you click on *Add entry*, the following window appears:



You can now enter the ID manually, but we recommend holding the card/badge up to the reader on the station ( ) so that the ID is scanned in automatically.

If the text field has been filled in automatically, the card/badge has been successfully read.



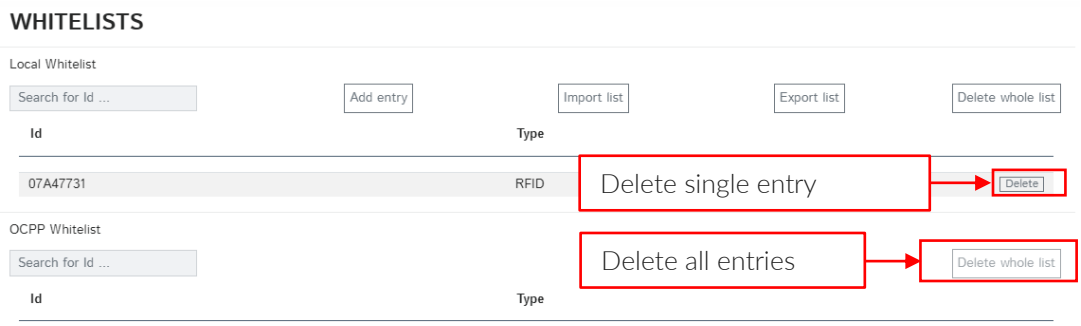
To complete the process, click on *Add entry*.

Important!
If you enter the ID manually, make sure that you type it in correctly. For security reasons, the code on the JUICE RFID card is not the same as the ID.

Import a list of RFID cards/badges
Create a table (in Excel or similar) with all the IDs which are to be imported in a single column (with one underneath the other). Save the file as .csv (comma-separated values). Next, click on *Import list* and select your list.

Export a list of all registered RFID cards/badges
Click on *Export list*. All the IDs registered at this station will be collated for you and downloaded as a .csv file.

Delete RFID cards/badges



HOW CAN I ESTABLISH A CONNECTION WITH THE CHARGING STATION?

You can establish a connection with the charging station in the following ways:

Access via USB
Plug the micro USB connector of your cable into the respective port of the controller. This has the inscription “CONFIG”. Here you see a photo of the controller and the corresponding micro USB interface. Plug the other end of the cable into your PC.
You can now enter the local IP address of the charging controller in the address line of your browser: http://192.168.123.123/.

The access takes place via the operator access.
User name: operator
Password: JuiCeMeUP!

Access via Ethernet
Dynamic IP
Plug the Ethernet cable into the correct port. If the charging controller receives an IP address from a DHCP server (standard configuration), which can be part of a network router for example, you must find the IP address there.

Static IP
For a static IP configuration, use the configured static IP address.

To enable a configuration if neither of the described methods is possible or accessible for you, a permanent static second IP address is configured on the Ethernet interface of the controller. This IP address is 192.168.124.123. To access it, it is necessary for you to configure your PC to an IP address in the same address space and with the same subnet screen manually. For example, you can use the address 192.168.124.100 and the subnet screen 255.255.255.0.

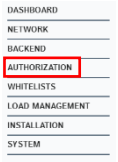
The web interface is then accessed with the URL http://IP address/operator; i.e. in the above example, with the URL http://192.168.124.123/operator.

The access takes place via the operator access.
User name: operator
Password: JuiCeMeUP!

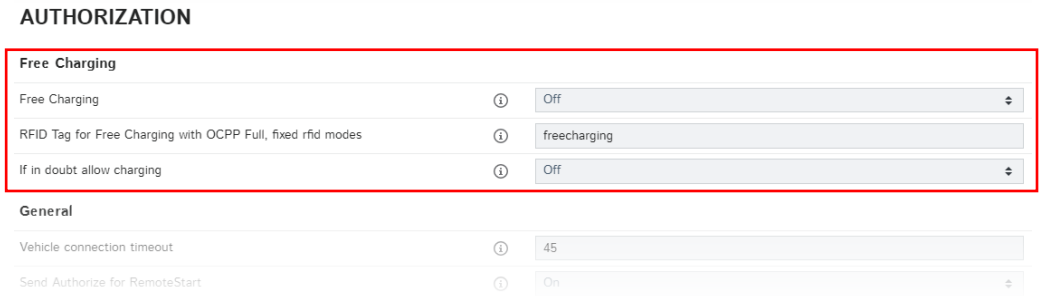
HOW CAN I SWITCH THE STATION TO FREE CHARGE? (CHARGING WITHOUT AUTHENTICATION)

Without backend

First of all, establish a connection with the station. See How can I establish a connection with the charging station?

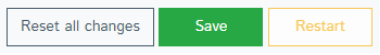


Next, click on the AUTHORISATION item in the main menu on the left.
The following screen then appears:



Only the framed part is of relevance for you. There, you will see that the Free Charge mode is currently deactivated. Open the drop-down menu and select *On*.

Next, press *Save* in the bottom right and finally *Restart*.

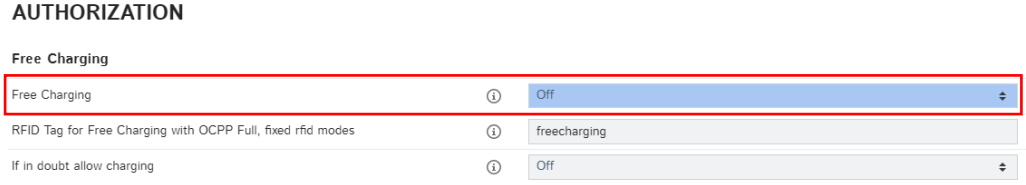


After the restart, any person can charge at no cost. The charging process starts immediately after a connection with the car has been established.

With backend

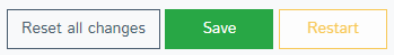
First of all, establish a connection with your backend. See How do I connect my station with a backend?

To be able to set Free Charge from a separate backend, it is necessary for *Free Charge* to be set to *Off* at the station.



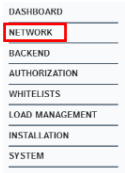
All the other settings will then be managed directly from your backend and must also be set there.

Next, press *Save* in the bottom right and finally *Restart*.



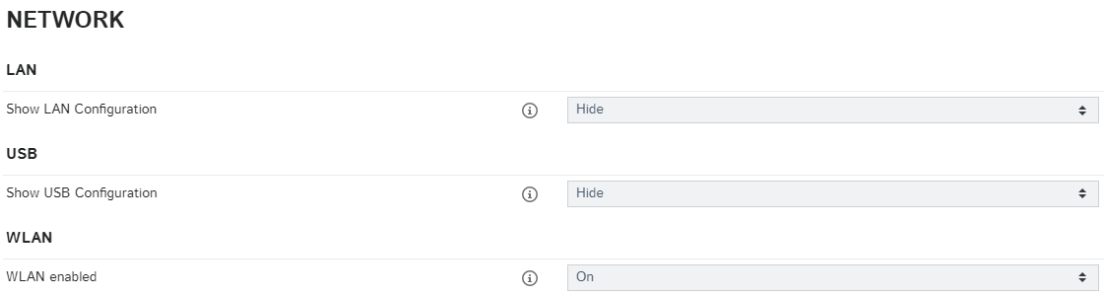
HOW CAN I CONNECT SEVERAL STATIONS WITH EACH OTHER? (LOAD MANAGEMENT)

First of all, establish a connection with the station. See How can I establish a connection with the charging station?



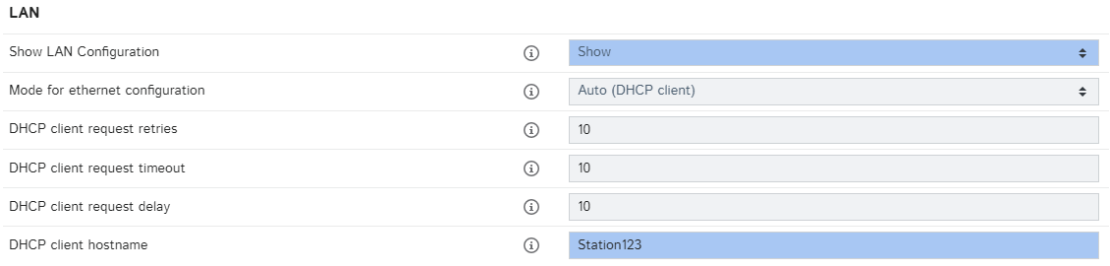
Setting up the network

Next, click on the NETWORK item in the main menu on the left.
The following screen then appears:

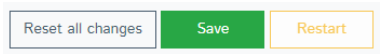


Network via LAN

To set up a network via LAN connection, select *Show* in the drop-down menu.



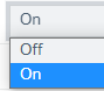
Finally, press *Save* in the bottom right-hand corner and then *Restart*.



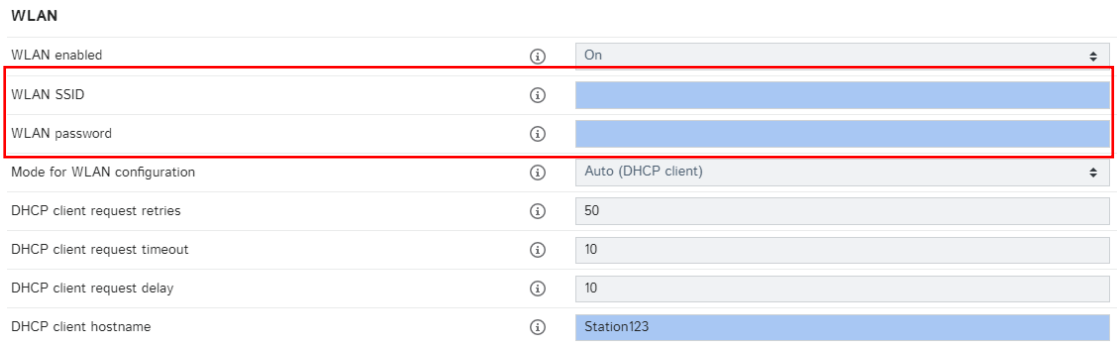
Repeat this procedure on all the stations which are to be connected with each other.

Network via WiFi

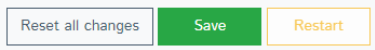
To create a network via a WiFi connection, plug the WiFi adapter supplied into one of the two USB ports and select *On* in the drop-down menu.



Next, enter the name of the WiFi network to be connected and the password under *WiFi SSID.*

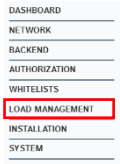


Finally, press *Save* in the bottom right-hand corner and then *Restart*.

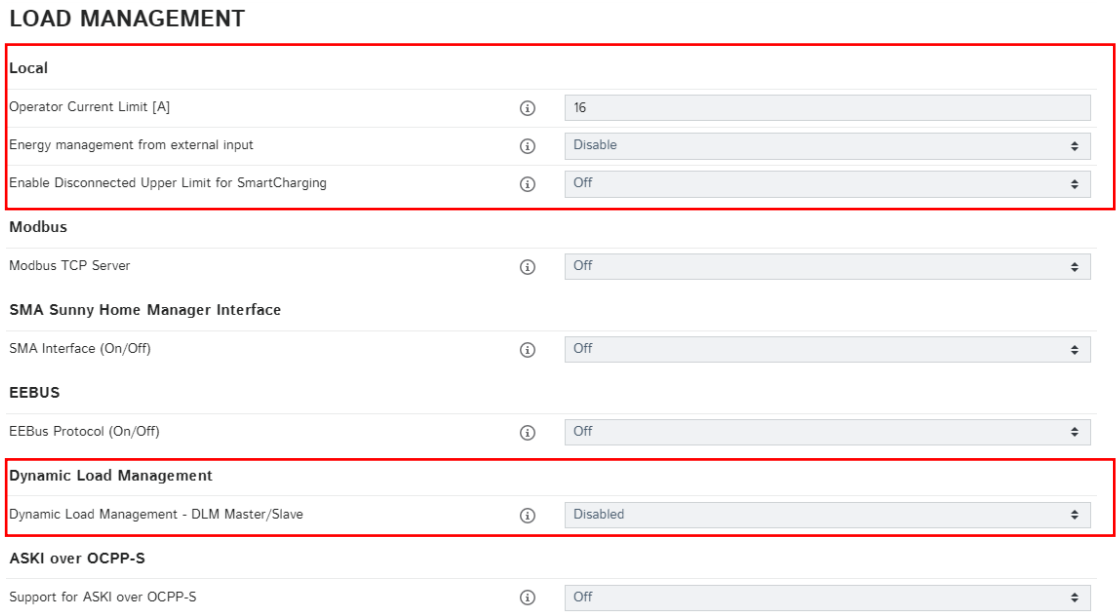


Repeat this procedure on all the stations which are to be connected with each other.

Setting up a master station



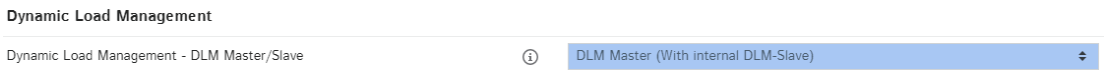
Click on the LOAD MANAGEMENT item in the main menu on the left.
The following screen then appears:



For your purposes, only the areas *Local* and *Dynamic Load Management* are important.

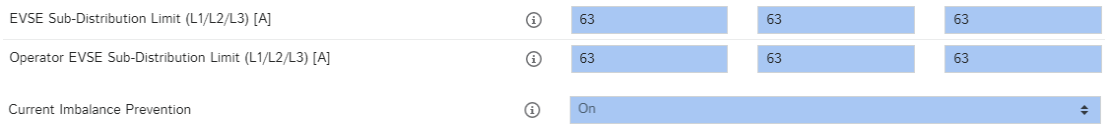
At *Operator current limit (A)*, enter the maximum current (in amperes) which should be available at this station. This value can only be equal to or smaller than the installation current limit.

At *Dynamic Load Management*, open the drop-down menu and select the role that this station should take in the load management. Firstly, we take care of the main station, which will tell the other stations how much power is available to them. Here, you select *DLM master (with internal DLM slave)*.



At *DLM network Id*, you assign a unique ID to the network. In this way, you can subsequently tell the slave stations of the network in which they should search for their master. If you only want to have 1 load management in your network, enter *1* here.

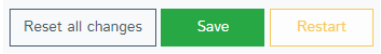
For the two items *Sub-Distribution Limit,* you enter how much current the load management is able work with per phase. If a total of 63 amperes is available, you should enter *63* for all fields. Activate the *Current Imbalance Prevention* item.



An unbalanced load is the uneven loading of the phases of a three-phase alternating current network, which is prohibited above a certain current intensity in certain countries. Inform yourself about the local regulations in your country/region. This function is only relevant for single-phase charging e-vehicles.
Next, enter the current in amperes in the field below

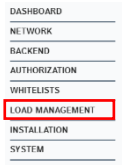
At *Disconnected Limit [A]*, you specify with how much current the station should continue to charge if the stations are no longer able to communicate with each other. For safety reasons, we recommend keeping this value as low as possible.

Finally, press *Save* in the bottom right-hand corner and then *Restart*.

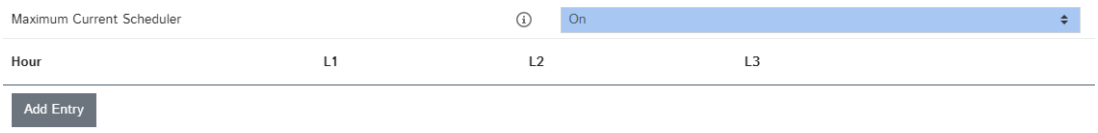


a. Time-dependent load management (optional)

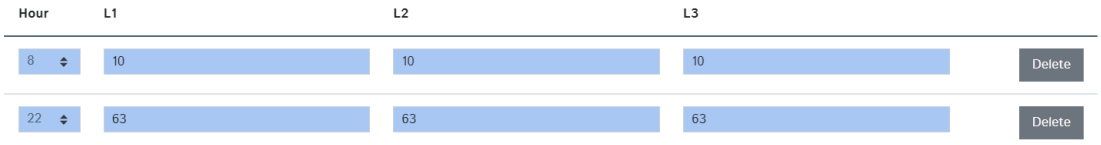
This section is not relevant to the basic function of load management, but can be set up optionally.



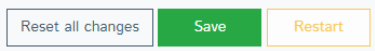
Click on the LOAD MANAGEMENT item in the main menu on the left and scroll to the end of the page.
Activate the maximum current schedule via the drop-down menu and then create the time periods using the *Add Entry* button. Important: It is necessary for there to be at least two entries.



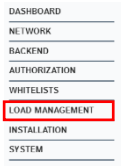
Here is an example to help you understand:
Only 10 amperes are to be available during the day, and the full 63 amperes at night.



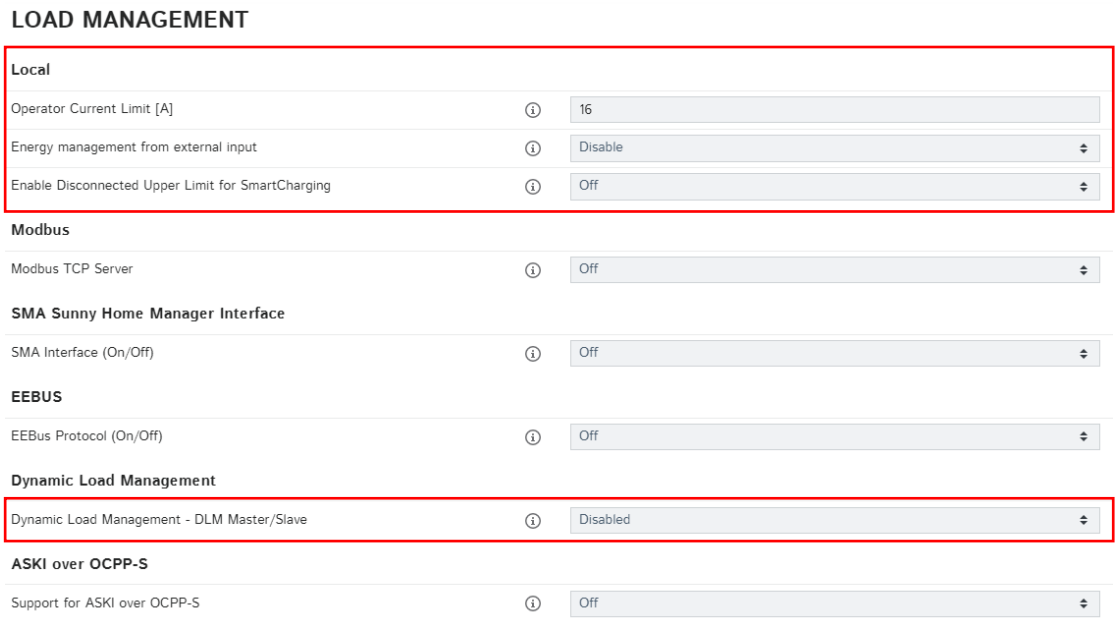
Finally, press *Save* in the bottom right-hand corner and then *Restart*.



Setting up slave stations

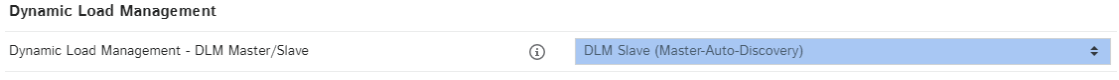


Click on the LOAD MANAGEMENT item in the main menu on the left again.
The following screen then appears:



At *Operator current limit (A)*, enter the maximum current (in amperes) which should be available at this station. This value can only be equal to or smaller than the installation current limit.

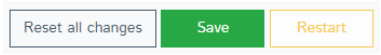
At *Dynamic Load Management*, open the drop-down menu and select *DLM-slave (Master-Auto-Discovery)*.



For *DLM network Id*, enter the same number as you have for the master station. In our example, that is a *1*.

At *Disconnected Limit [A]*, you specify with how much current the station should continue to charge if the stations are no longer able to communicate with each other. For safety reasons, we recommend keeping this value as low as possible.

Finally, press *Save* in the bottom right-hand corner and then *Restart*.

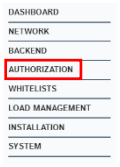


Repeat this procedure on all stations which are also to be integrated into the load management as slaves. The basic load management set-up is complete. The load management is functional.

HOW CAN I ACTIVATE PLUG & CHARGE (ISO 15118)?

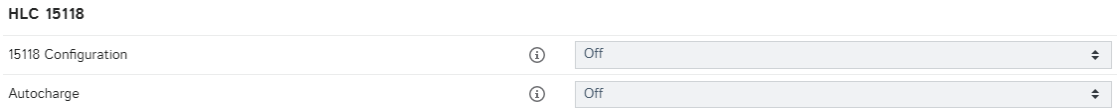
Check whether your vehicle actually supports Plug & Charge. https://en.wikipedia.org/wiki/ISO_15118

First of all, establish a connection with the station. See How can I establish a connection with the charging station?

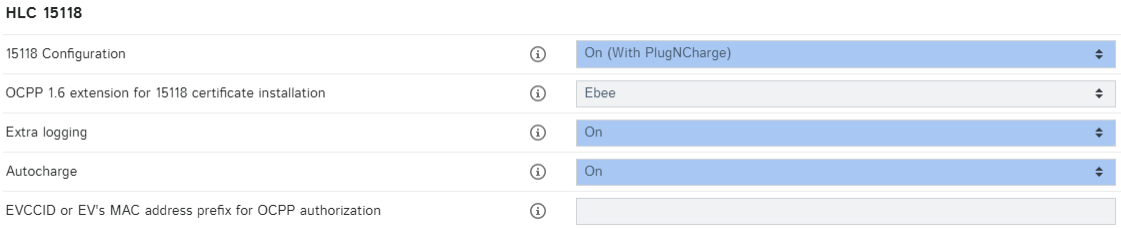


1. Activating Plug & Charge (ISO 15118)

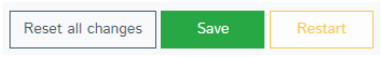
Click on the AUTHORISATION item in the main menu on the left and scroll to the end of the page.
The following screen then appears:



Set the parameters as shown in the following screenshot.



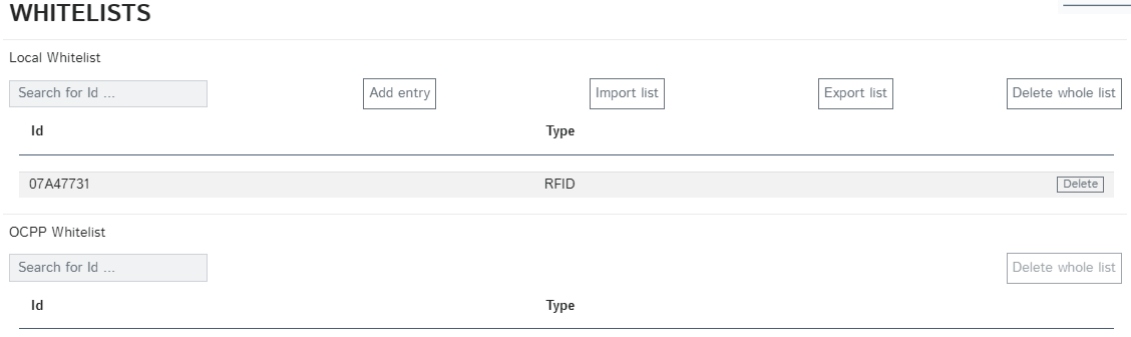
Next, click on *Save* in the bottom right and finally *Restart*.



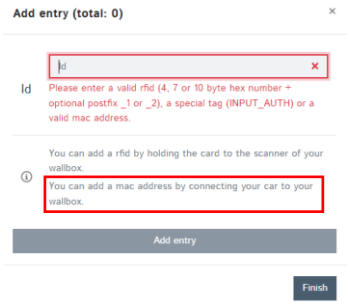
Plug & Charge (ISO 15118) is now activated. For your car to be recognised, we now have to add it.

2. Adding your car

To do this, click on the WHITELISTS item in the main menu on the left.

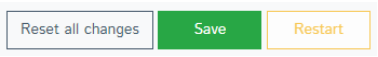


If you click on *Add entry*, the following window appears:



Now connect the type 2 cable of the charging station to your car and wait until the ID field is filled in automatically. Next, press *Add entry*.

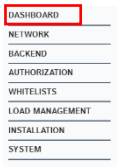
Finally, press *Save* in the bottom right-hand corner and then *Restart*.



WHERE CAN I SEE MY CHARGING HISTORY?

The charging history can only be retrieved on units with a built-in MID counter.

First of all, establish a connection with the station. See How can I establish a connection with the charging station?



Click on the DASHBOARD item in the main menu on the left.
This overview then appears:

Next to the item *Last month*, you can click on *export*. All the charging processes from the last 30 days will be collated in a .csv file with the

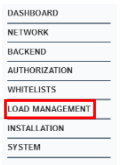
- Start date
- Start time
- Duration
- Charge quantity (Wh)
- RFID tag

and downloaded for you.

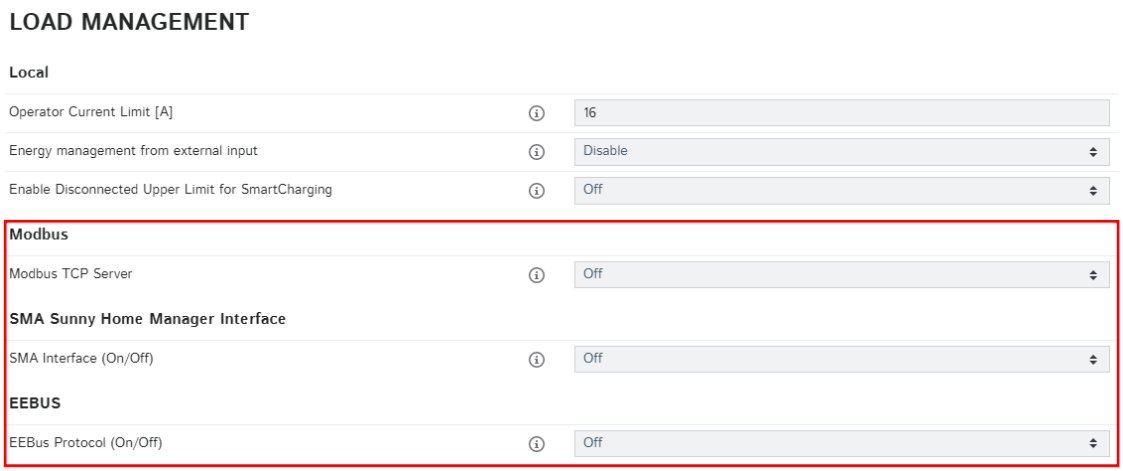
HOW CAN I ACTIVATE PV-CONTROLLED CHARGING?

First of all, establish a connection with the station. See How can I establish a connection with the charging station?

Click on the LOAD MANAGEMENT item in the main menu.
You can activate PV-controlled charging in three different ways:

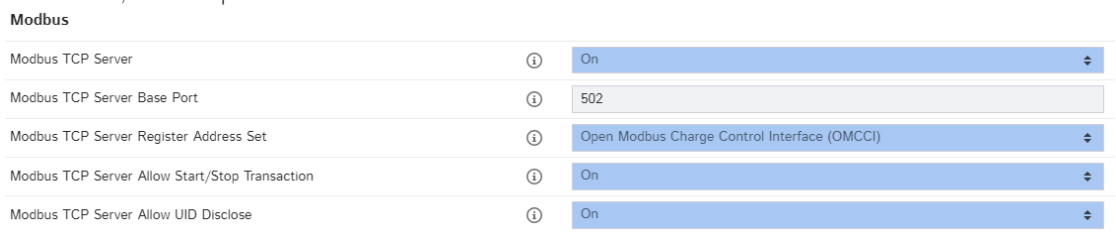


- Modbus
- SMA interface (Sunny Home Manager, SEMP protocol)
- EEBUS interface



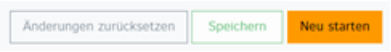
1. Modbus

To do this, set the parameters as follows:



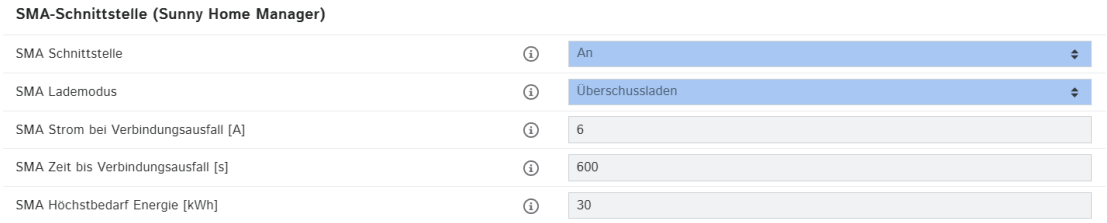
You can find the Modbus register set with all the possible commands here.

Finally, press *Save* in the bottom right-hand corner and then *Restart*.



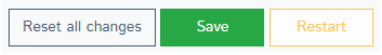
2. SMA interface (Sunny Home Manager)

To do this, set the parameters as follows:



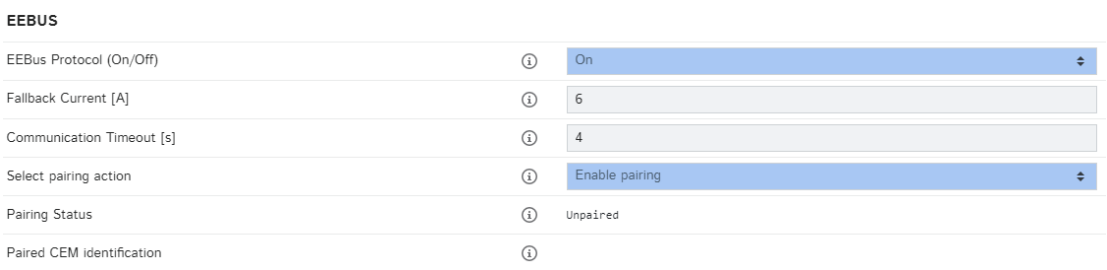
The Sunny Home Manager should recognise your station automatically. If it does not, please contact the manufacturer of the Sunny Home Manager, as no other parameters can be set for this purpose at the station.

Finally, press *Save* in the bottom right-hand corner and then *Restart*.

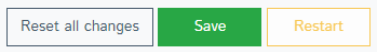


3. EEBUS interface

To do this, set the parameters as follows:



Finally, press *Save* in the bottom right-hand corner and then *Restart*.

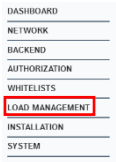


HOW DO I SET UP THE LOAD SHEDDING?

Make sure that the electrician has correctly connected the two potential-free contacts according to point 5 of the installation instructions.

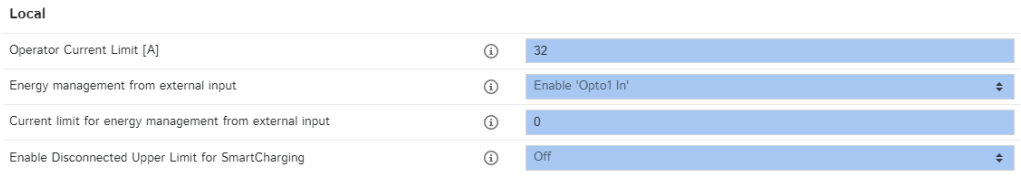
First of all, establish a connection with the station. See How can I establish a connection with the charging station?

Click on the LOAD MANAGEMENT item in the main menu on the left.

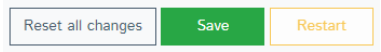


Without load management

Scroll to the *Local* section.
Set *Energy management from external input* to *Enable 'Opto 1 In'.*
With *Current limitation for energy management from external input*, you can set to the amount of amperes to which the power of the station is to be reduced. 0 stops the charge in the case of load shedding, while 10 would reduce the power to 10 amperes.

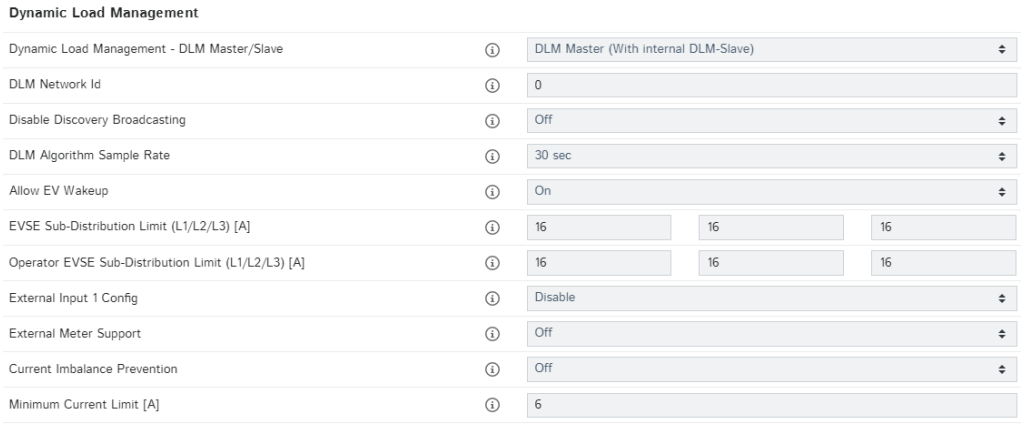


Finally, press *Save* in the bottom right-hand corner and then *Restart*.

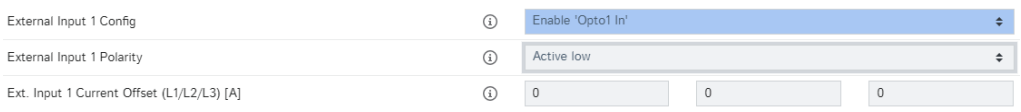


With load management

Scroll to the *Dynamic Load Management* section.



Open the *Status of external input 1* drop-down menu and select *'Opto 1 In'.*

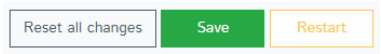


Next, set the polarity of the external input.
The external input can respond to a Active high ("normally open") or a Active low ("normally closed") signal. This setting must be selected in agreement with the responsible energy supplier.

Finally, you can set the current offset. In other words, by how much each individual phase is to be reduced in the case of load shedding. You should also discuss this setting with your energy supplier.

Here is another example:
16 A are distributed to the charging network. The current offset is set to -10 A. As soon as the load shedding signal from the power supplier is received, the power is reduced by the current offset.
16 A – 10 A = 6 A
This way, the load management continues to run with 6 A after the shedding.

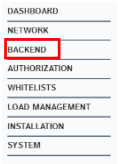
Finally, press *Save* in the bottom right-hand corner and then *Restart*.



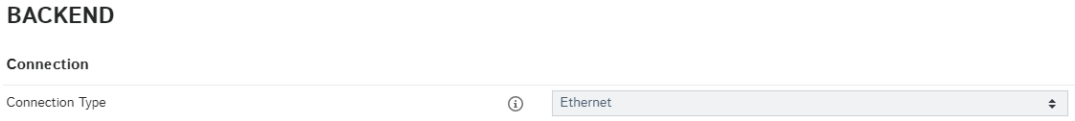
Important: If you are unable to save, scroll to the Local section and set the *External Input 1 Config* to *Disable*, and it will then work.

HOW DO I CONNECT MY STATION WITH A SEPARATE BACKEND?

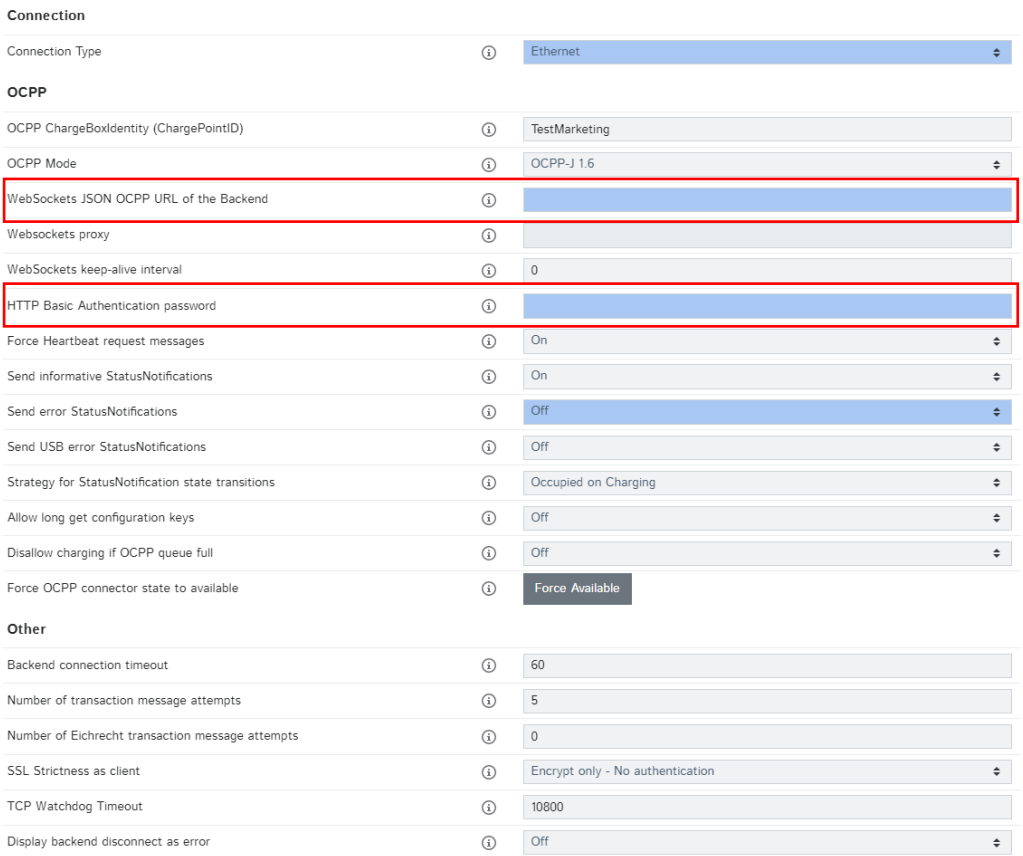
First, connect all stations to each other via a network. See How can I connect several stations with each other? (Load management)



After that, click on the BACKEND item in the main menu on the left.
Next, select the *Connection Type*. Typically this setting is analogous to the network which has already been set up.

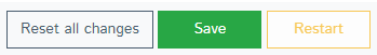


Next, enter the access data of your separate backend, i.e. the URL (wss://ocpp-1-6.end-point.wallbe-hub.com:443/) in the field *WebSockets JSON OCPP URL of the Backend* and the password (12345678901234567890) in the field *HTTP Basic Authentication password*. Do not select the connection type until the server data is stored.



Important: All further settings depend either on your backend provider or on your personal preferences. If you don't know which item is for what purpose, just click on ⓘ and read the description there.

Finally, press *Save* in the bottom right-hand corner and then *Restart*.



Repeat this procedure on all the stations which are to be connected with the backend.

MODBUS REGISTER SET

Reg. Type	Address	Name	R/W	Nr. Regs.	Description
Holding	100	Firmware Version	R	2	Returns the Application version number (example: 0.91 = {0x30, 0x2E, 0x39, 0x31) 4.40 = {0x34, 0x2E, 0x34, 0x34}).
Holding	104	OCPP CP Status	R	1	Charge Point status according to the OCPP spec. enumaration
Holding	105	Error Codes 1	R	2	Aggregated error states (see Spec. sheet for mask mappings)
Holding	107	Error Codes 2	R	2	Aggregated error states (see Spec. sheet for mask mappings)
Holding	109	Error Codes 3	R	2	Aggregated error states (see Spec. sheet for mask mappings)
Holding	111	Error Codes 4	R	2	Aggregated error states (see Spec. sheet for mask mappings)
Holding	120	Protocol Version	R	2	Modbus TCP Server Protocol Version number (example: 0.6 = {0x30, 0x2E, 0x36}).
Holding	122	Vehicle (Control Pilot) state	R	1	A=1, B=2, C=3, D=4, E=5
Holding	123	Vehicle (Control Pilot) state in Hex. format	R	1	A = 0x0A, B = 0x0B, etc.
Holding	124	Charge Point availability	R/W	1	Get/Set available/unavailable
Holding	131	Safe Current (Amps.)	R/W	1	Max. charge current under communication failure
Holding	132	Comm. Timeout (seconds)	R/W	1	Communication timeout
Holding	133	Hardware current limit	R	1	
Holding	134	Operator current limit	R	1	
Holding	135	RCMB Mode	R	1	
Holding	136	RCMB Last RMS value (integral part)	R	1	
Holding	137	RCMB Last RMS value (fractional part)	R	1	
Holding	138	RCMB Last DC value (integral part)	R	1	
Holding	139	RCMB Last DC value (fractional part)	R	1	
Holding	140	Relays State	R	1	
Holding	141	Device ID	R	1	This register is a device identifier and always returns the value 0xEBEE (decimal 60398)
Holding	142	ChargePoint Model	R	2	ChargePoint Model. Bytes 0 to 3.
Holding	144	ChargePoint Model	R	2	ChargePoint Model. Bytes 4 to 7.
Holding	146	ChargePoint Model	R	2	ChargePoint Model. Bytes 8 to 11.
Holding	148	ChargePoint Model	R	2	ChargePoint Model. Bytes 12 to 15.
Holding	150	ChargePoint Model	R	2	ChargePoint Model. Bytes 16 to 19.
Holding	152	Plug lock detect	R	1	Status of plug lock detection

Reg. Type	Address	Name	R/W	Nr. Regs.	Description
Holding	200	Energy L1	R	2	Energy in Wh. (phase 1) from primary meter
Holding	202	Energy L2	R	2	Energy in Wh. (phase 2) from primary meter
Holding	204	Energy L3	R	2	Energy in Wh. (phase 3) from primary meter
Holding	206	Power L1	R	2	Power in W (phase 1) from primary meter
Holding	208	Power L2	R	2	Power in W (phase 2) from primary meter
Holding	210	Power L3	R	2	Power in W (phase 3) from primary meter
Holding	212	Current L1	R	2	Current in mA (phase 1) from primary meter
Holding	214	Current L2	R	2	Current in mA (phase 2) from primary meter
Holding	216	Current L3	R	2	Current in mA (phase 3) from primary meter
Holding	218	Total Energy	R	2	Total Energy in Wh. from primary meter
Holding	220	Total Power	R	2	Total Power in Wh. from primary meter
Holding	222	Voltage L1	R	2	Returns the voltage of phase 1 of the ocpp meter in V.
Holding	224	Voltage L2	R	2	Returns the voltage of phase 2 of the ocpp meter in V.
Holding	226	Voltage L3	R	2	Returns the voltage of phase 3 of the ocpp meter in V.
Holding	600	DLM Mode	R	1	Indicates the DLM mode configured for this device.
Holding	610	DLM EVSE Sub-distribution Limit L1	R	1	Overall current limit for DLM available for EVs
Holding	611	DLM EVSE Sub-distribution Limit L2	R	1	Overall current limit for DLM available for EVs
Holding	612	DLM EVSE Sub-distribution Limit L3	R	1	Overall current limit for DLM available for EVs
Holding	**613**	**DLM Operator EVSE Sub-distribution Limit L1**	**R/W**	**1**	**Operator current limit for DLM available for distribution to EVs**
Holding	**614**	**DLM Operator EVSE Sub-distribution Limit L2**	**R/W**	**1**	**Operator current limit for DLM available for distribution to EVs**
Holding	**615**	**DLM Operator EVSE Sub-distribution Limit L3**	**R/W**	**1**	**Operator current limit for DLM available for distribution to EVs**
Holding	620	DLM External Meter support	R	1	Value of this register is 1 when External Meter is enabled, 0 when disabled
Holding	621	DLM Number of Slaves connected	R	1	The number of DLM Slaves connected to this Master device
Holding	630	DLM Overall Current applied L1	R	1	Overall Current (A) the DLM Master is currently applying (sum of current distributed among the slaves)
Holding	631	DLM Overall Current applied L2	R	1	Overall Current (A) the DLM Master is currently applying (sum of current distributed among the slaves)

Reg. Type	Address	Name	R/W	Nr. Regs.	Description
Holding	632	DLM Overall Current applied L3	R	1	Overall Current (A) the DLM Master is currently applying (sum of current distributed among the slaves)
Holding	633	DLM Overall Current available L1	R	1	Overall Current (A) the DLM Master has available to distribute among the slaves
Holding	634	DLM Overall Current available L2	R	1	Overall Current (A) the DLM Master has available to distribute among the slaves
Holding	635	DLM Overall Current available L3	R	1	Overall Current (A) the DLM Master has available to distribute among the slaves
Holding	701	Scheduled Time (hhmmss)	R	2	Scheduled departure time (format is `hhmmss` in big-endian packed BCD with left zero padding) – 15118 only
Holding	703	Scheduled Date (yymmdd)	R	2	Scheduled departure time (format is `ddmmyy` in big-endian packed BCD with left zero padding) – 15118 only
Holding	706	Signaled Current	R	1	The maximum current that's being signaled to the EV for charging
Holding	707	Start Time (hhmmss)	R	2	Start time of charging process
Holding	710	End Time (hhmmss)	R	2	End time of charging process
Holding	712	Minimum current limit	R	1	Minimum current limit for charging
Holding	713	EV Required Energy (Wh)	R	2	Returns the amount of energy in Wh required by the EV
Holding	715	Max. Current EV	R	1	This is the maximum current with which the EV can charge
Holding	716	Charged Energy	R	2	Sum of charged energy for the current session (Wh)
Holding	718	Charging Duration (seconds)	R	2	Duration since beginning of charge
Holding	720-721	User ID, 32-Bit	R	2	User ID (OCPP IdTag) from the current session. Bytes 0 to 3.
Holding	722-723	User ID, 32-Bit	R	2	User ID (OCPP IdTag) from the current session. Bytes 4 to 7.
Holding	724-725	User ID, 32-Bit	R	2	User ID (OCPP IdTag) from the current session. Bytes 8 to 11.
Holding	726-727	User ID, 32-Bit	R	2	User ID (OCPP IdTag) from the current session. Bytes 12 to 15.
Holding	728-729	User ID, 32-Bit	R	2	User ID (OCPP IdTag) from the current session. Bytes 16 to 19.
Holding	740	15118 Smart vehicle detected	R	1	Returns 1 if an EV currently connected is a smart vehicle, or 0 if no EV connected or it is not a smart vehicle
Holding	741	EVCCID - 15118 only	R	2	ASCII representation of the Hex. Values corresponding to the EVCCID. Bytes 0 to 3.
Holding	743	EVCCID - 15118 only	R	2	ASCII representation of the Hex. Values corresponding to the EVCCID. Bytes 4 to 7.
Holding	745	EVCCID - 15118 only	R	2	ASCII representation of the Hex. Values corresponding to the EVCCID. Bytes 8 to 11.
Holding	1000	Hems Current Limit (A)	R/W	1	Current limit of the HEMS module in Amps

Reg. Type	Address	Name	R/W	Nr. Regs.	Description
Holding	1110	User ID	W	2	Write user ID (OCPP IdTag) for the current session. Bytes 0 to 3.
Holding	1112	User ID	W	2	Write user ID (OCPP IdTag) for the current session. Bytes 4 to 7.
Holding	1114	User ID	W	2	Write user ID (OCPP IdTag) for the current session. Bytes 8 to 11.
Holding	1116	User ID	W	2	Write user ID (OCPP IdTag) for the current session. Bytes 12 to 15.
Holding	1118	User ID	W	2	Write user ID (OCPP IdTag) for the current session. Bytes 16 to 19.