

# CLEMAP Load Management

## Dynamic and static control for charging stations of different manufacturers

To support tenants, property owners and energy suppliers, CLEMAP Load Management takes over the **central control and coordination function** of the loads to enable a **cost-efficient and seamless integration of electric mobility** and to relieve the electrical grid.

As soon as more than two charging stations are installed, a control system for the charging stations is required. Dynamic load management makes it possible to distribute the available power evenly among the charging stations.

This eliminates the need to increase the electrical connection to the main distribution board as well as the associated recurring costs. Interruptions in operation due to grid overloads are also a thing of the past.

The product comprises **two components**: the **measuring device**, which consists of a three-phase electrical sensor and a current transformer, and the **software**, which, with a free basic licence (Floem FREE), covers all functions necessary for operation. Various licence models are available for optional additional functions.

An internet connection is required to transfer the energy data (optional). This can be established wirelessly or via a LAN network. As soon as the connection is established, the meter connects to the CLEMAP Cloud where all consumption data is presented.

The CLEMAP Load Management sends the allowed current consumption to the charging stations of the electric cars via the same IP network. The data can also be sent via the charging stations' cloud services.



- Local **dynamic or static** real-time charging management
- Integration of **controllable and non-controllable charging stations** (ON/OFF charging stations)
- Operation **with or without connection to the cloud**
- Monitoring via **Dashboard** for electricians and administrators
- Monitoring** of house/electricity connection via online energy portal CLEMAP Floem
- Remote setting** of priority and power availability of the charging stations
- Billing** for property owners
- API interface

The meter has two outputs and a digital input to receive broadcast control signals for control by the distribution network operator and accepts dynamic load reduction commands via API.

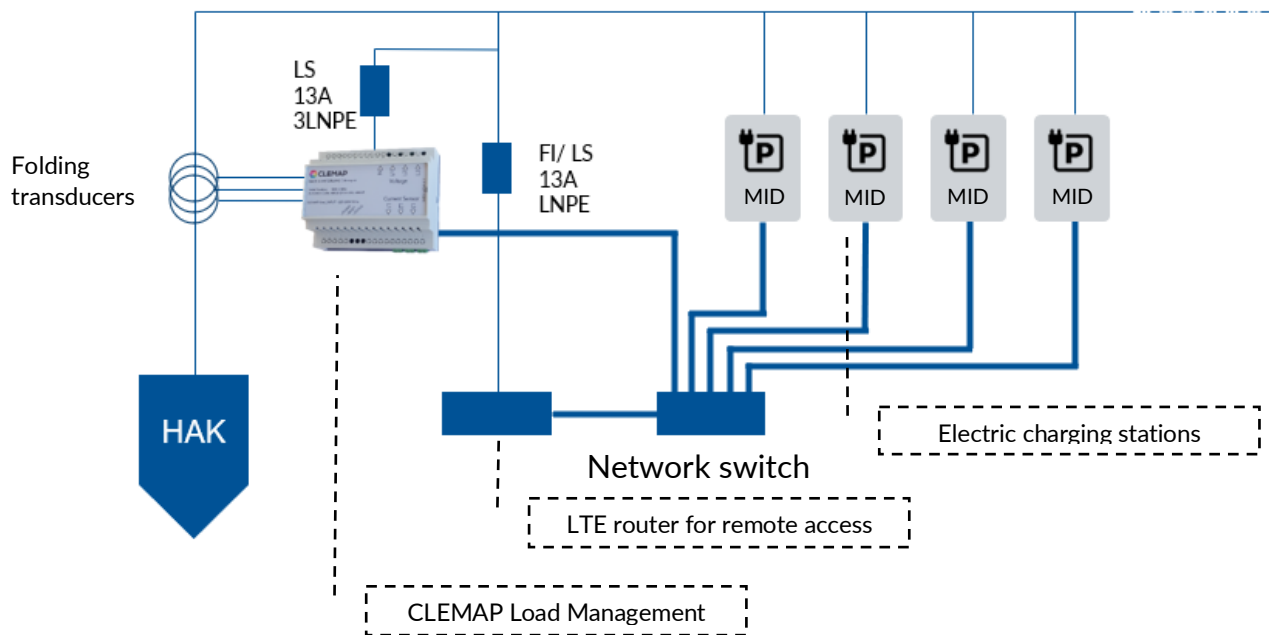
## Compatibility

CLEMAP Load Management currently works with the following brands and models:



# CLEMAP Load Management

## Typical installation of the CLEMAP Load Management



## Monitoring via Dashboard

CLEMAP Load Management can operate in the local network and basically works without an internet connection. However, it is recommended to install an internet connection so that the status of the charging stations can be monitored remotely via CLEMAP Floem after commissioning.

The following information is available in CLEMAP Floem:

- Status of the charging stations: free, occupied, charging, discharging and not in operation
- Limits of the charging stations: can be dynamically controlled and adjusted in real time

Status	Name	Location	Main Current Limit
CHARGING	Bank Building	Katzenbachstr. 23, 8000 Zürich	L1: 20.5 A, L2: 19.0 A, L3: 18.0 A
CHARGING	AGIP Center	Katzenbachstr. 20, 8000 Zürich	L1: 17.5 A, L2: 16.0 A, L3: 14.0 A
CHARGING	Home	Börsenstrasse 11, 8000 Zürich	L1: 20.5 A, L2: 19.0 A, L3: 18.0 A

Status	Type	Name	Charging Current	Dynamic Limit
CHARGING	Webasto	Aussen 1	L1: 3.0 A, L2: 4.0 A, L3: 5.0 A	15.0 A
CHARGING	Webasto	Aussen 2	L1: 3.0 A, L2: 4.0 A, L3: 5.0 A	15.0 A
CHARGING	Webasto	Aussen 3	L1: 3.0 A, L2: 4.0 A, L3: 5.0 A	15.0 A
IDLE	Webasto	Garage 1	L1: - , L2: - , L3: -	15.0 A
IDLE	Webasto	Garage 2	L1: - , L2: - , L3: -	15.0 A
ISSUE	Webasto	Garage 3	L1: 3.0 A, L2: 4.0 A, L3: 5.0 A	15.0 A

# CLEMAP Load Management

## Technical data

Rated voltage: 400 V	Warranty: 24 Monate
Voltage interface: L1, L2, L3	Dimensions: 105x86x59 mm
Rated frequency: 50 Hz	DIN Rail Montage
Power consumption: < 3 W	CE-certified
Maximum current per phase (A): 80/125/200/400/1000/2000/6000A	Data Interface: CSV, PDF, REST API, SDAT/EBIX
Real-time data with 10 seconds resolution for voltage, current, apparent, active, reactive power and power factor	Wireless 802.11b/g/n, LAN, 3G*, Communication with charging stations via: Modbus TCP, Modbus RTU** and RestAPI. Digital input, 1-channel (ripple control signal input), digital output, 2-channel.
Positive and negative energy flows	* with external 3G modem ** with external adapter

## Hardware components

Order number	Product description
C-04A-WL-080A-CS	CLEMAP Load Management 80A
C-04A-WL-125A-CS	CLEMAP Load Management 125A
C-04A-WL-200A-CS	CLEMAP Load Management 200A
C-04A-WL-400A-CS	CLEMAP Load Management 400A
C-04A-WL-01kA-CS	CLEMAP Load Management 1000A
C-04A-WL-02kA-CS	CLEMAP Load Management 2000A
C-04A-WL-06kA-CS	CLEMAP Load Management 6000A



**For prices and licence models incl. functions, please see the separate price list.**



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