

DYNAMIC LOAD MANAGEMENT

LOCAL OVERLOAD PROTECTION WITH MENNEKES PROFESSIONAL CHARGING SYSTEMS





Dynamic load management Local overload protection

The MENNEKES charging stations AMTRON® Professional and AMEDIO Professional offer an integrated „local overload protection“ function (also called „local blackout protection“) in the form of dynamic load management. Operational safety can be guaranteed because the existing energy supply is not overloaded. The core function is the dynamic consideration of fluctuations in consumption of the property. A presetting of the current value specification, which determines the supply has to be done with the help of an additional external measuring device. The networking between the energy meter and the charging station has to be done via a direct connection or via a Ethernet switch/router. The charging stations are for example compatible with the following energy meters:

Siemens PAC 2200:

- Indirect measurement via transducer (5 A):
- 7KM2200-2EA30-1JA1 (with MID approval)
- 7KM2200-2EA30-1EA1 (without MID approval)

Direct measurement via transducer (up to 63 A):

- 7KM2200-2EA40-1JA1 (with MID approval)
- 7KM2200-2EA40-1EA1 (without MID approval)

Phoenix EEM-MB371-EIP 2907976

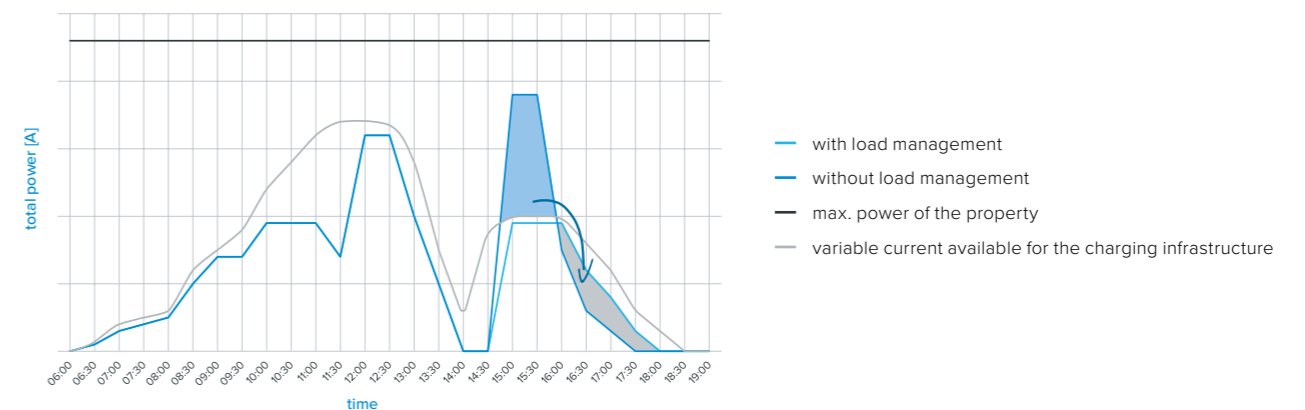
- This meter additionally enables a direct connection of Rogowski coils



Note:

If the IP address of the product is not known (e.g. due to dynamic IP address assignment by a DHCP server), the IP address can either be found via a network scan (freeware tool on the end device of the installers, e.g. Laptop) or via the web interface of the local installed router / switch.

Dynamic load management Functions



The dynamic load management queries at regular intervals the current consumption measured by the meter. The charging currents are intelligent distributed to the connected charging points. The definable upper limit of the available power is not exceeded.

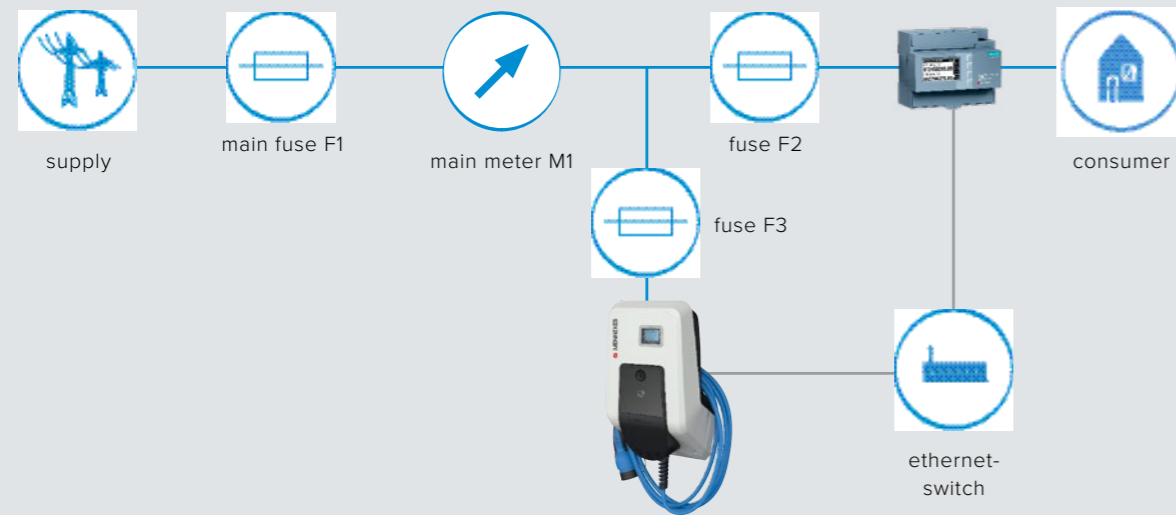
Local overload protection

Mode of operation

The charging stations are configured by the electrician via Web-Interface (see manual). For the overload protection two different modes of operation can be used:

1 External meter measures only external consumers
 The external meter can be placed in such a way that only the external consumers are measured. The load management subtracts the current consumption at the meter from the set value in the parameter „Main

Distribution Limit (L1/L2/L3 [A])“ and makes the remaining power available. If more than one charging point is connected, the available charging current is distributed evenly all connected vehicle.

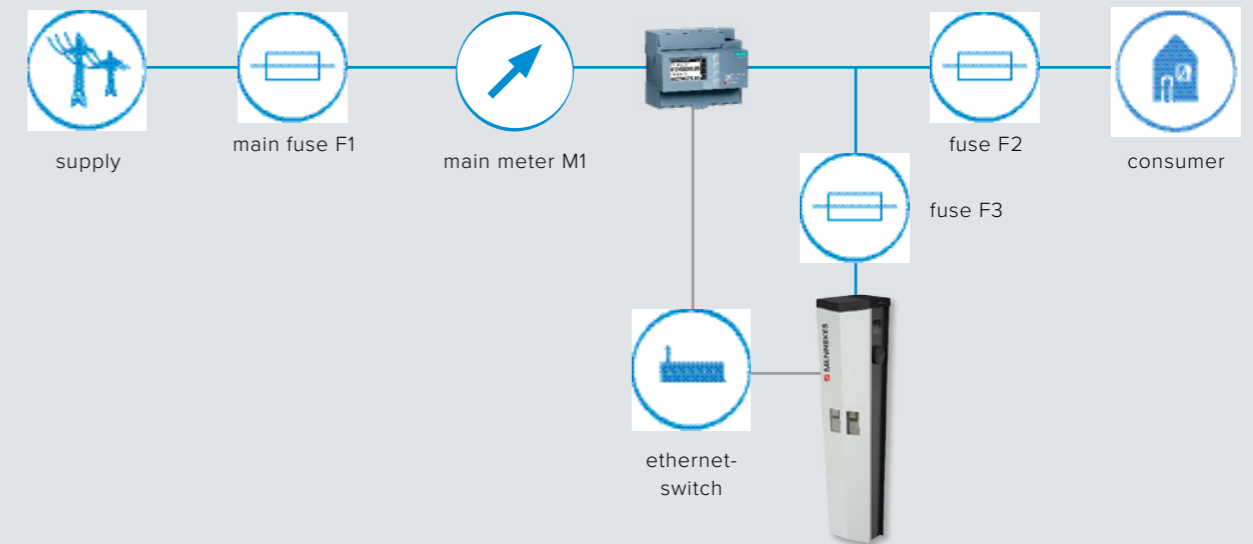


Local overload protection

Mode of operation

2 External meter measures external consumers and charging stations (total consumption)
 The external meter can be placed in such a way that the total consumption is measured. The load management regulates the individual charging current of the charging points so that the measured value of the

meter does not exceed the set value in the parameter „Main Distribution Limit (L1/L2/L3 [A])“. If more than one charging point is connected, the available charging current is distributed evenly all connected vehicle.



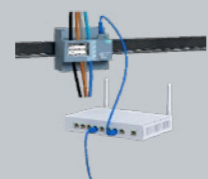
Example of networked charging infrastructure

Small property for example private homes

- Setting load management in the Professional charging system
- Determination of the dynamic setting via external measuring device
- Phase-precise load management
- Blackout protection including consideration of other consumers in the building



— power flow
 LAN (ethernet)



external measuring device
 e.g Siemens PAC2200
 switch/router

Example of networked charging infrastructure

Large property for example companies/ block of flats



- Setting load management in the Professional charging system
- Determination of the dynamic setting via external measuring device
- Phase-precise load management
- Blackout protection including consideration of other consumers in the building



MENNEKES

Elektrotechnik GmbH & Co. KG

Aloys-Mennekes-Straße 1
57399 KIRCHHUNDEM
GERMANY

Phone: + 49 2723 41-1

Fax: + 49 2723 41-214

www.chargeupyourday.com

112020 Subject to change without notice. No liability accepted for printing errors.

