

AC/DC-CHARGE MONITOR



Features

- Measuring unit for measuring currents and voltages of AC- or DC-signals.
- The measuring unit is installed between charge station and vehicle.
- The measuring unit disposes about 3 connection options:
 - Schuko-plug/socket: for 1-phase measurement
 - CEE32-plug/socket: for 1- or 3-phase measurement
 - Mennekes-plug/socket: for 1- or 3-phase measurement (32 A)
- Measuring speed is configurable individually. Current and voltage can be measured simultaneously up to 16 kHz.
- Output of measuring values on a 7-inch-display and/or via CAN-interfaces.
- Following measuring modes are available:
 - DC-measurement: I_instantaneous, U_instantaneous, I_charge, I_discharge, I_total,
 - AC-measurement: I_instantaneous, U_instantaneous.
- The measured values may be used for calculating the following values:
 - U_eff,
 - I_eff,
 - $\cos \varphi$ and P_active power,
 - electric work.These values can be pictured on the display or transmitted via CAN-interfaces.

Version

- plastic-housing, 480/300/480 mm (l/w/h)
- protection class IP54,
- temperature range -20...+50°C
- supply 230 V AC, current consumption approx. 2 A

A detailed technical description is contained in our user manual

Delivery

- Measuring unit
- PC software for configuration via CAN or USB-2.0 interface
- CAN database and documentation on CD ROM
- USB 2.0 connection cable
- **Using KlariViewer-software logged data can be displayed and processed further.**

Accessories: • USB 2.0 connection cable



AC/DC-CHARGE MONITOR

TECHNICAL DATA

Input	<ul style="list-style-type: none"> • 3 x KLARI-ONE-PLUS modules using 1 I/U-Combi-PROBE each, 1mOhm, 1000 V • parallel measurement of current and voltage 																																								
Resolution	<ul style="list-style-type: none"> • 5 measurement ranges and autorange function selectable • ± 15 bit/range <table border="1"> <thead> <tr> <th>Gain</th> <th colspan="2">I-PROBE</th> <th colspan="2">U-PROBE</th> </tr> <tr> <td></td> <td colspan="2">1 mΩ</td> <td colspan="2">1000 V</td> </tr> <tr> <td></td> <th>range [A]</th> <th>resolution [mA/bit]</th> <th>range [V DC]</th> <th>resolution [mV/bit]</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>+/- 7,5</td> <td>0,25</td> <td>0...+/- 37,5</td> <td>1,25</td> </tr> <tr> <td>50</td> <td>+/- 15</td> <td>0,5</td> <td>0...+/- 75</td> <td>2,5</td> </tr> <tr> <td>24</td> <td>+/- 30</td> <td>1</td> <td>0...+/- 150</td> <td>5</td> </tr> <tr> <td>6</td> <td>+/- 120</td> <td>4</td> <td>0...+/- 600</td> <td>20</td> </tr> <tr> <td>1</td> <td>- 300/+ 720</td> <td>24</td> <td>0...+/- 1000</td> <td>120</td> </tr> </tbody> </table>	Gain	I-PROBE		U-PROBE			1 m Ω		1000 V			range [A]	resolution [mA/bit]	range [V DC]	resolution [mV/bit]	100	+/- 7,5	0,25	0...+/- 37,5	1,25	50	+/- 15	0,5	0...+/- 75	2,5	24	+/- 30	1	0...+/- 150	5	6	+/- 120	4	0...+/- 600	20	1	- 300/+ 720	24	0...+/- 1000	120
Gain	I-PROBE		U-PROBE																																						
	1 m Ω		1000 V																																						
	range [A]	resolution [mA/bit]	range [V DC]	resolution [mV/bit]																																					
100	+/- 7,5	0,25	0...+/- 37,5	1,25																																					
50	+/- 15	0,5	0...+/- 75	2,5																																					
24	+/- 30	1	0...+/- 150	5																																					
6	+/- 120	4	0...+/- 600	20																																					
1	- 300/+ 720	24	0...+/- 1000	120																																					
Accuracy	<ul style="list-style-type: none"> • $\pm 1\%$ of measurement value ± 3 bit of range • valid for temperature range of - 40 .. + 85°C 																																								
Sample rate	<ul style="list-style-type: none"> • internal up to 16 kHz, 																																								
Features	<ul style="list-style-type: none"> • selectable data output (CAN2.0B and/or USB-2.0 interface) • data output via CAN 1 and CAN 2 configurable (baudrate, identifier etc.) • internal CAN-termination, switchable via software • automatic PROBE-identification with calibration value processing 																																								
Output	<ul style="list-style-type: none"> • 2 x CAN 2.0 A/B, (High-Speed CAN, ISO 11898) from 125 kbit/s up to max. 1 Mbit/s, per CAN with up to 8.000 frames/s • USB-2.0 interface 																																								
Timestamp	<ul style="list-style-type: none"> • 6.4 μs resolution (is included in CAN frame) 																																								
Housing	<ul style="list-style-type: none"> • plastic-housing, - Protection • IP54 - Weight • 20 kg - Dimension • 480/300/480 mm (L/W/H) 																																								
Supply	<ul style="list-style-type: none"> • 230 V, 50 Hz 																																								
Current consumption	<ul style="list-style-type: none"> • ca. 2 A 																																								
Configuration	<ul style="list-style-type: none"> • via PC using CAN or USB-2.0 interface. Configurations could be created, archived and loaded into the module. • speed CAN: 125 kB...1 MB • measurement type, measuring speed, channels 																																								
Modes	<ul style="list-style-type: none"> • DC-measurement • AC-measurement, 1- or 3-phase • RMS calculation for AC signals • Selectable sample speed for the channels 																																								
Temperature range	<ul style="list-style-type: none"> • -20...+ 50°C 																																								
Isolation	<ul style="list-style-type: none"> • 1000 V 																																								

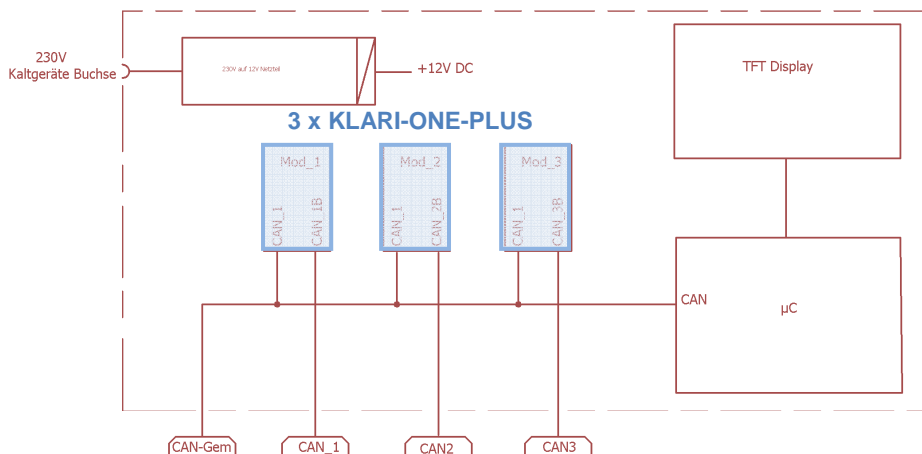
Status May 2016. All mentioned trademarks or brands are property of the corresponding owner. Subject to error and technical changes.V1



AC/DC-CHARGE MONITOR

Block diagrams

- CAN interface wiring:



- PROBE placement:

