



# Monitoring and control

## REACT-MTR-1PH

The REACT-MTR-1PH is a four-quadrant energy meter designed for residential buildings application. With its compact design, it provides a wide variety of electrical measurements to FIMER inverters<sup>1</sup> via RS-485 communication bus.

REACT-MTR1-PH is a single phase meter up to 30 A.  
The exceptional low power consumption of the meter, less than 1 VA, makes it economical in the long run.

**Communication**

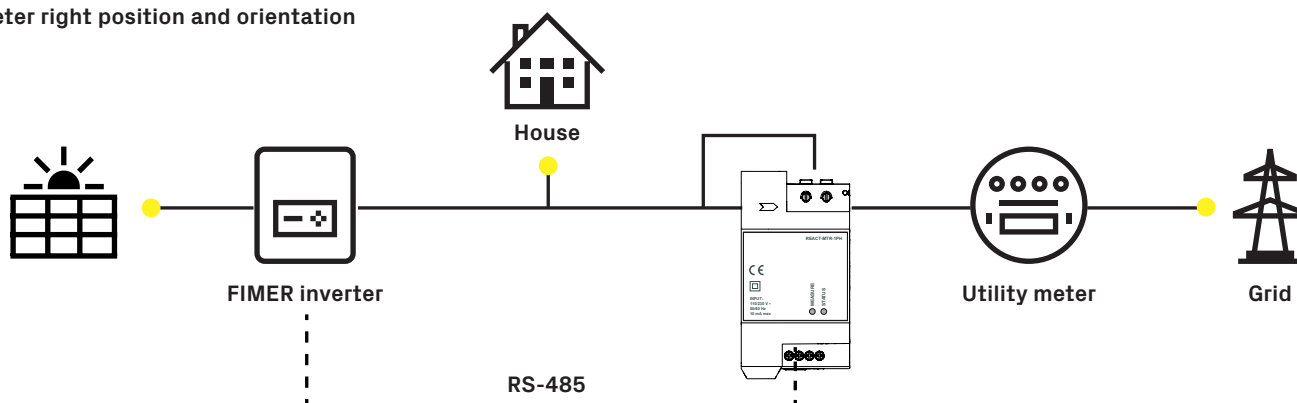
Data (electrical measurement) can be collected via built-in serial communication interface (RS-485).  
Built-in leds show communication and grid power conditions

**Electrical measurements**

REACT-MTR-1PH meter support large number of electrical data readings. In particular:

- Active power, reactive power, apparent power,
- Voltage
- Current
- Power factor
- Frequency

**Meter right position and orientation**



**Technical data and types**

Type code	REACT-MTR-1PH
<b>Voltage input</b>	
Nominal voltage (V <sub>nom</sub> )	230 V AC
Voltage range	0.9 * V <sub>nom</sub> - 1.1 * V <sub>nom</sub>
Power dissipation voltage circuits	< 1 VA (0.6 W) total
Terminal wire area	0.5 - 4 mm <sup>2</sup>
Recommended tightening torque	0.45 - 0.5 Nm
<b>Current input</b>	
Maximum current I <sub>max</sub>	30 A
Minimum current I <sub>min</sub>	0.15 A
Rated current I <sub>r</sub>	5 A
cable max diameter	8 mm
Current sensor inner diameter	8.5 mm
<b>Output</b>	
Communication port	RS485
Communication protocol	Modbus RTU
Terminal wire area	0.14 - 1.5 mm <sup>2</sup>
Recommended tightening torque	0.5 - 0.6 Nm
<b>General data</b>	
Mounting method	DIN 43880 rail
Frequency	50 Hz
Frequency range	47.5 hz - 52.5 hz
Power accuracy	active 1%, reactive 2%
<b>Environmental</b>	
Operating temperature	-25°C - +70°C
Storage temperature	-25°C - +85°C
Humidity	75% yearly average, 95% on 30 days/year
Altitude	< 2000 m
Protection class	IP 21
<b>Standards and marking</b>	
Standards	CE, IEC 61010-1, IEC91326-1
<b>Physical</b>	
Width, height, depth	53 mm, 100 mm, 64 mm
DIN modules	3

1) For the compatible FIMER inverter list refer to the document "Meters supported by FIMER string inverters and the VSN700-05 Data Logger" available at [www.fimer.com/solarinverters](http://www.fimer.com/solarinverters)

**Remark. Features not specifically listed in the present data sheet are not include in the product**



For more information  
please contact  
your local FIMER  
representative or visit:

[fimer.com](http://fimer.com)

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. FIMER does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of FIMER. Copyright© 2020 FIMER. All rights reserved.

