

# MCS501

High precision rack mounted meter



## BLUE<sup>2</sup> meter

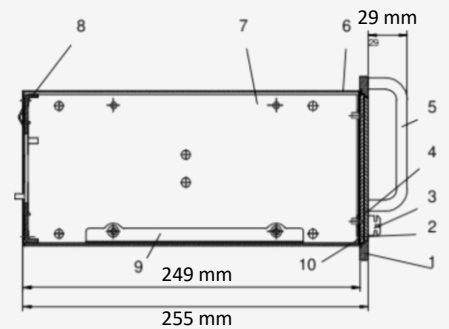
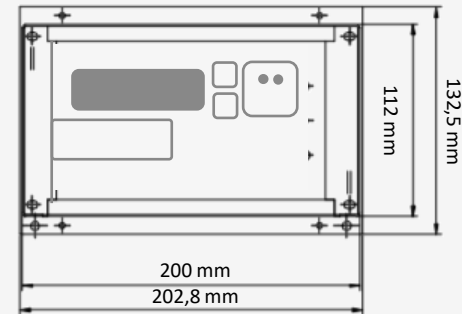


- ✓ Precise measurement active accuracy Cl. 0.2 S and 0.5 S for reactive
- ✓ Power quality data acquisition according to EN50160
- ✓ Multiple options for time series recording of load profile and power quality data
- ✓ Customized configuration of readout lists and display
- ✓ Auxiliary power supply 48-240 V (AC / DC)
- ✓ Parallel data communication on all interfaces
- ✓ 2 x RS485 interface or 1 x RS485 and Ethernet
- ✓ Multiprotocol: EN62056-21 and DLMS / COSEM, IDIS Package 2 compatible
- ✓ High-level security with encryption and authentication
- ✓ Firmware download option
- ✓ Housing for 19" Racks with special Essailec connections

## Technical Specification

		MCS501
<b>Nominal voltage</b>	4-wire, 3 systems	3 x 58/100 V; 3 x 63/110 V; 3 x 115/200 V, 3 x 127/220 V, 3 x 132/230 V, 3 x 230/400 V
	3-wire, 2 systems	3 x 58/100 V - 240/415 V 3 x 100 V; 3 x 110V; 3 x 220 V
<b>Nominal / maximum current</b>		1(2) A; 1(6) A; 5(6) A; 1(10) A; 5(10) A
<b>Frequency</b>		50 or 60 Hz ±5%
<b>Accuracy class</b>	Active	Class 0.2 S (IEC 62053-22) or Class C (EN 50470-3)
	Reactive	Class 0.5S (IEC 62053-24)
<b>Temperature / Environmental influences</b>	Temperature	Operation: - 40°C ... +70°C Storage: - 40°C ... +85°C
	Humidity	95% rel. humidity, non-condensing
	Ingress protection	IP54
<b>Protection class</b>		Class II to IEC 62052-11
	Surge withstand	6 kV, R <sub>source</sub> = 40Ω
<b>Electro-magnetic Compatibility</b>	1.2/50 us (EN 50407-1)	Auxiliary circuits 6 kV
	Insulation strength	4 kV <sub>rms</sub> , 50 Hz, 1 min.
	EMC Conditions	MID E2
<b>Real time clock</b>	Accuracy	Crystal < 5 ppm = < 3 min./year (at Top= +25°C)
	Supercap	1 day; charging time 50 hours
	Internal /External battery	5 / 8 years (without main power)
<b>Internal tariff source</b>	Acc. EN 62054	8 tariffs, 4 seasons, weekday dependent tariff scheme
<b>Display</b>	Characteristics	Type: LCD liquid crystal display backlighted
	number of digits	Value field: up to 8; index field: up to 7
	digit size	Value field: 4 x 8 mm; index field: 3 x 6 mm
	Read-out without power	With external battery (option)
<b>Power supply</b>	Type	Transformer based power supply – operating with failure of two phase or one phase and neutral
	self-consumption	< 1,1 W; < 2,3 VA per phase 50 or 60 Hz
	Auxiliary Power Supply	48 ... 230 V AC/DC (Optional)
	Control- or alarm-input	Max. 2: Control voltage Un +/- 20%
<b>Inputs and Outputs (option)</b>	Pulse-input	Max. 2: S0 Type
	Output	Max. 6 : S0 / 230 V <sub>AC/DC</sub> (+15%); 100 mA
		Max. 5: 12 to 230 V <sub>AC/DC</sub> (+15%); 100 mA    Max. 5: 12 to 230 V <sub>AC/DC</sub> (+15%); 100 mA
	Bistable mech. relay	Max. 1: 230 V AC (+/- 15%); 10 A
<b>LED output</b>	Type / Number	2 LEDs kWh / kvarh
	Meter constant	programmable
<b>Communication Interfaces</b>	Optical	Infrared, half-duplex; max. 9600 bps; DLMS / EN62056-21 Protocol
	Electrical (1)	RS485 max. 38.400 bps; DLMS / EN62056-21 Protocol
	Electrical (2) or	RS485 max. 38.400 bps; DLMS / EN62056-21 Protocol
	Ethernet (2)	TCP/IP, IPv4, 10M/100Mbit
<b>Housing</b>	Dimensions	ca. 203 x 132,5 (112) x 264 (H x B x T) mm, gem. DIN 43862
	Material	Aluminum, steel, polycarbonate (Lexan), recyclable
	Environmental conditions	M1 / E2 acc. Measuring instruments directive (2014/32 / EU)
<b>Connections</b>		ESSAILEC connectors system
<b>Weight</b>		Aprox. 2,3 kg

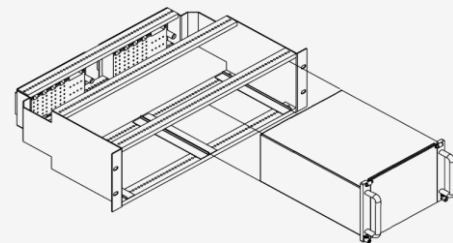
## Dimensions



## Main parts

- |                 |                      |
|-----------------|----------------------|
| 1 front panel   | 6 housing            |
| 2 acrylic sheet | 7 side wall          |
| 3 holding plate | 8 connector plate II |
| 4 acrylic sheet | 9 U-plate            |
| 5 handles       | 10 metal front panel |

## 19" Rack installation



## BLUE SQUARE CONCEPT



## About Us

MetCom Solutions GmbH was founded with the aim to Develop, Manufacture and Deliver innovative Metering solutions and support Utilities to master their Digital Transformation journey.

**MADE**  
**IN**  
**GERMANY**

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