

Optimize your grid with secure and efficient HV metering

Plug'n play solution for OMNIA® 6 systems



HV metering that helps you optimize grid operation

To keep your grid stable, you need a continuous and detailed overview of HV consumers and renewable production so you can predict disturbances, act before they occur, and ensure uninterrupted power for everyone – especially when faced with increasing demand and fluctuating renewable production.

Quick and easy solution

A MetCom metering solution from Kamstrup offers continuous and detailed HV metering plus secure data communication with your HES, helping you meet grid management targets. It interfaces seamlessly with your OMNIA® 6 system, and getting started is quick and easy: We offer project packages that are tailored to your needs and help you

- Set up and install your system
- Get to know your new MetCom meter
- Get started with data collection.

Our customised packages help you achieve the full potential of your HV metering solution from day one. All MetCom meters have been calibrated before leaving their factory in Germany to ensure maximum precision.

Quick facts about MetCom HV meters

- MetCom HV meters are high-speed, high-quality DLMS meters that automatically collect and securely transmit a wide range of values and events and provide immediate alarms.
- MetCom is a pioneering German company that focuses on grid management and advanced metering solutions. MetCom has installed more than 150.000 HV meters globally since 2019.

Facts

High-voltage consumers often account for up to 50 % of billable consumption.

To use our MetCom meter solutions, you need the OMNIA® 6 system.

Three major benefits of a MetCom solution from Kamstrup

Efficient grid management: high quality of supply

Our HV metering solutions help you monitor and analyze voltage levels in order to minimize stress on your electricity grid and avoid issues. For example, you can detect neutral fault situations before they threaten property, and you can zone in on grid bottlenecks from overproduction.

This is possible with our wide analytics and measurement capabilities, including historical voltage levels and a variety of events and alarms, which help you optimize grid operations.

High data integrity: optimized data security

A Kamstrup solution with MetCom meters protects your valuable data. With efficient encryption from meter to HES, you can count on your data being secure and reliable – and so can your customers, partners, and local authorities.

All data is transferred at high speed over protected mobile network connections. Encryption keys are renewed automatically and distributed securely using security certificates.

Secure development: compliant and reliable devices

With MetCom, you get secure development throughout the supply chain: Developed in-house by MetCom's own R&D department, while additional firmware is developed by trusted European vendors. All modules adhere to EU standards and are protected against security breaches.

Every meter is tested in MetCom's own laboratory before being shipped, and meter failure rate is near 0.1% – including failure and damage caused by customers.

OMNIA® Software packages

MetCom software package for billing data

Robust and secure data collection including key management

Add-On

Power quality package

Automatic, periodic collection of power quality data such as minimum and maximum values for current and voltage

Alarm and event package

Automatic, periodic collection of events such as overvoltage and undervoltage per phase and instant push alarms

Meter Management Package

Modify the configuration of individual meters and upgrade meter firmware

Contact us to learn more

Ready to learn more about optimized grid management with our secure and efficient HV metering solution?

Contact your local sales representative or globalelectricitysales@kamstrup.com for further information.



MCS301 CT/VT wall-mounted meter and MCS501 CT/VT rack meter

Nominal voltage	4-wire, 3 systems 3-wire, 2 systems	3 x 58/100 V to 3 x 240/415 V 3 x 230/400 V to 3 x 415/720 V (MCS301 only) 3 x 100 V to 3 x 230 V
Nominal / Max. current	Indirect connection	1[10] A
Frequency		50 Hz
Accuracy class	Indirect connection	Class 0.5S (MCS301 only) or Class 0.2S (IEC 62053-22)
Environmental influences	Temperature Humidity Ingress protection Protection class	Operation: -40° C to +70° C Storage: -40° C to +85° C 95 % rel. humidity, non-condensing IP54 Class II to IEC 62052-11
Real-time clock	Battery lifetime	15 years, with an exchangeable battery
Display	Characteristics Number of digits Read-out without power	Type: LCD liquid crystal display backlighted Value field: up to 8 With external battery
Power supply	Type Voltage circuit Current circuit	Operating during phase failures: The meter can function even if one or two or the neutral line fail. Less than 0.4 W and less than 1.1 VA per phase at 50 Hz Less than 0,01 W and less than 0.02 VA per phase at 50 Hz
Auxiliary power supply	Voltage range Power consumption	48-240 V AC/DC Less than 1.9 W and less than 4.5 VA
Inputs and Outputs	Output (electronic)	For MCS301: 6 outputs: 12 to 230 V AC/DC (+15%); 100 mA For MCS501: 6 outputs: S0 / 230 V AC/DC (+15%); 100 mA Outputs are configurable, default A+, A-, R+, R-, 5000 Imp / kWh / kvarh
Customer interface	DSMR standard	Accessible by customer and according to DSMR 5.0.2 companion standard
LED output	Type / Number Meter constant	2 LEDs kWh / kvarh Default 10000 imp / kWh / kvarh
Integrated communication	Optical RS485 Ethernet	Infrared, half-duplex; 9600 bps; DLMS / EN62056-21 DLMS / EN62056-21 10/100 Mbit, DLMS / EN62056-21 (MCS501 only)
Exchangeable communication		4G LTE (MCS301 only) 4G LTE Ethernet
Housing	Dimensions [MCS301] Material [MCS301] Dimensions [MCS501] Material [MCS501]	218 x 82 x 174 (W x T x D) mm; DIN 43857 part 2; DIN 43859 Polycarbonate (Lexan), partly glass-fiber reinforced, flame-retardant, self-extinguishing plastic, recyclable 203 x 132,5 (112) x 264 (W x T x D) mm; DIN 43862 Aluminum, steel, polycarbonate (Lexan), recyclable
Connections	Indirect Connection	MCS301: 1 x Screw type terminals, cages; Ø=5.0 mm PZ2 MCS501: ESSAILEC connectors system
Weight	Indirect connection	MCS301: Approx. 1.2 kg MCS501: Approx. 2.5 kg

Kamstrup A/S

Industrivej 28, Stilling
DK-8660 Skanderborg
T: +45 89 93 10 00
F: +45 89 93 10 01
info@kamstrup.dk
kamstrup.com