



# Success guaranteed

## The new CMS-700 Control Unit and open-core sensors

# Control Unit CMS-700 and open-core sensors

## Efficient energy monitoring has never been so easy

Making good and well-proven products a little bit better: in line with this principle we have expanded our successful CMS (Circuit Monitoring Systems) to include a new open-core sensor generation that can simply be pushed onto existing installations without power interruption. The new Control Unit CMS-700 additionally expands the product range with the option of analyzing the measurement data for up to 96 sensors and displaying or further processing it with an integrated web server or via the interfaces LAN TCP/IP or Modbus RTU. This results in a unique overall system that leaves nothing to be desired in terms of assembly, handling and measurement precision.



The new Control Unit CMS-700 analyzes up to 3 x 32 current sensors in order to collect the energy and power data of the outputs



The new open-core sensors now offer even greater flexibility



### Minimum space requirement

Small, smaller, CMS – everything needed for effective measuring has been accommodated in the width of a sugar cube.



### Very simple installation

The sensors are mounted in next to no time. No special tools are needed for the entire connection process – there is no need for the usual complicated wiring.



### User-friendly commissioning

Configuring can be this smart: thanks to the intuitive operating concept the system can be set up and made ready for measuring in a matter of minutes.



### One sensor for all types of current

Direct current, alternating current or mixed current – the CMS sensors measure everything. And in a huge measuring range of up to 160 A.



### Always retrofittable and upgradeable

The system can be supplemented or modified at any time as it is extremely flexible and modular. Retrofitting is also possible sensor by sensor.



### Maximum reliability

The contactless measuring process rules out potential sources of error right from the start. The negligible amount of wiring required ensures maximum system stability.

This is the sign  
of success!





# CMS Circuit Monitoring System

## A whole system full of advantages

The CMS is a multi-channel measuring system for monitoring direct current and alternating current in the branches. Thanks to various mounting options, the sensors can be installed very flexibly within the control and distribution cabinets. The control units available are very simple to mount on the DIN rail. The compact design means that the systems are also ideal as a retrofit solution for existing installations.



### Early warning system (predictive maintenance) for increasing the availability of critical consumers

The continuous monitoring of the current flow on the circuit breaker enables overloaded lines to be identified before interruptions occur. Monitoring individual circuits also supplies information on whether the consumers are in the desired operating mode. CMS can also detect unbalanced loads in the system in good time.






### Cost analysis to reduce and assign energy costs

“You can’t improve what you can’t measure!” To make efficient use of the available energy it must first be clear where and how the electricity is used. The CMS offers maximum transparency here. In addition, recording the current flow on the individual outputs can also be used to perform a rough cost allocation.

# CMS system components

## An overview

### Control units

		
Control Unit CMS-700	Control Unit CMS-600	Control Unit CMS-770
TCP/IP+Modbus RTU	Modbus RTU	LAN + WLAN
Measuring instrument for recording the performance and energy of up to 96 sensors	Measuring instrument for measuring and monitoring the current of up to 64 sensors	Measuring instrument for recording the performance and energy of up to eight sensors








### Sensor installation methods

			
System pro M and SMISSLINE	S800	DIN-rail	Cable ties
for all LS, FI & FI-LS with two-tier terminal	for all S800 devices with cage terminal	universal application	universal application

### Open-core sensors

AC accuracy* $\leq \pm 1.0\%$ The position of the cable influences the precision.			
18 mm width			
CMS -120xx (80 A) CMS -121xx (40 A) CMS -122xx (20 A)	CMS -120PS CMS -121PS CMS -122PS	CMS -120DR CMS -121DR CMS -122DR	CMS -120CA CMS -121CA CMS -122CA

### Solid-core sensors

AC accuracy* $\leq \pm 0.5\%$				
18 mm width				
CMS -100xx (80 A) CMS -101xx (40 A) CMS -102xx (20 A)	CMS -100PS CMS -101PS CMS -102PS	CMS -100S8 CMS -101S8 CMS -102S8	CMS -100DR CMS -101DR CMS -102DR	CMS -100CA CMS -101CA CMS -102CA
25 mm width				
CMS -200xx (160 A) CMS -201xx (80 A) CMS -202xx (40 A)		CMS -200S8 CMS -201S8 CMS -202S8	CMS -200DR CMS -201DR CMS -202DR	CMS -200CA CMS -201CA CMS -202CA

\* All accuracy specifications refer to the relevant full scale value and apply to 25 °C.

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