



POWER ELECTRONICS

CURRENT SENSORS, VOLTAGE
SENSORS & VOLTAGE DETECTORS

EXPERT IN CUSTOMIZED AND STANDARD SENSORS FOR HARSH ENVIRONMENTS

Get the most out of our 50 years of experience in current and voltage measurements worldwide. Engineered in partnership with the most recognized industrial leaders, our sensors can handle extremes applications and harsh environments like railways, mining, offshore wind turbines, compact drive solutions and many more: your application is unique, so are our sensors.

1. PERFORMANCE

To allow precise energy metering, PETERCEM SENSORS reaches accuracy error lower than 0,25% (for HRS Range) and lower than 1% for other ranges. This accuracy is over frequencies up to 100 kHz, allowing your installation to run in a reliable and efficient way. Get high dynamic performances with representative outputs correctly followed up to 100 A/us and 50 V/us.

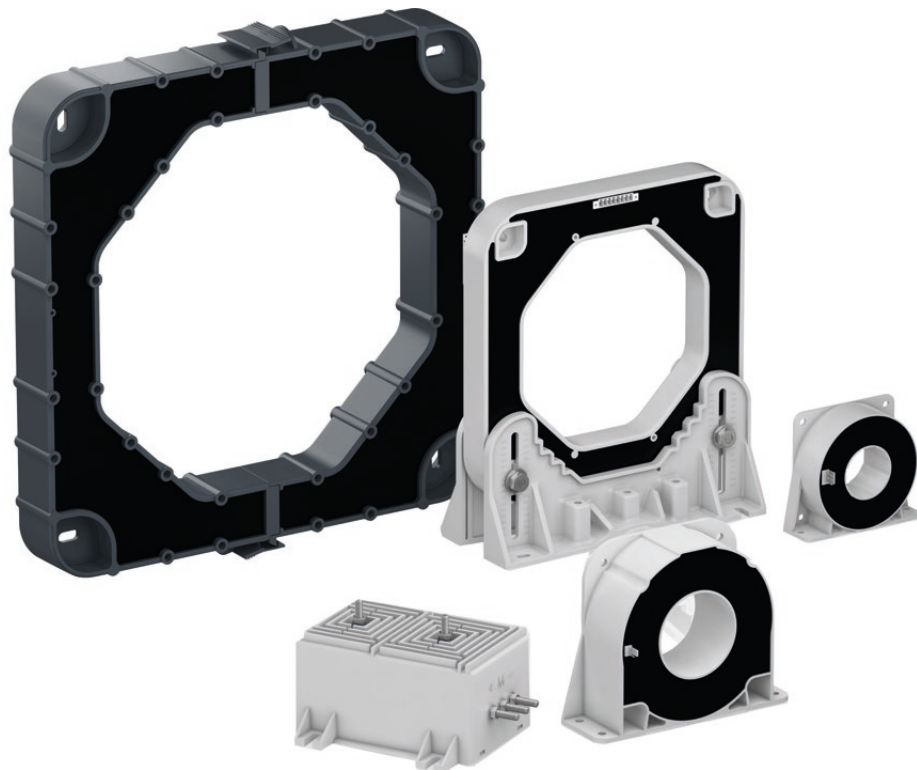
2. CUSTOMIZATION

Thanks to their specific designs, which prevent electric and magnetic perturbations, our sensors can be implemented in many different applications, such as compact systems or next to high current or voltage bus bars.

Geopolitical shift during the last few years pushed PETERCEM SENSORS teams to re-inforce their efforts to build robust and reliable products and organize a resilient supply chain using the best practice in the industry recognized by our certifications IRIS/EN9100.

3. RELIABILITY

Our thousands of sensors installed in harsh environments worldwide since more than 50 years demonstrate our extreme quality in designing, manufacturing and testing. Efficiency and cost control are major concerns in our industries: to support this trend, PETERCEM SENSORS teams build specific solutions to facilitate integration, give better technical capabilities and enable our customers to offer effective applications on their markets.



COMPLEMENTARY COMPONENTS FOR POWER ELECTRONICS APPLICATIONS



INSULATORS AND BUSHINGS

Use from 300V to 3 000V
Wide range of sizes and shapes
Male or female connection



SNAP ACTION SWITCHES

16A to 4 000A AC/DC
Making & breaking capacities
Motorized / manually operated



CAM SWITCHES

$I_{th} = 25A$
Many functions available
Customizable command switches



MINIATURES CIRCUITS BREAKERS

AC or DC applications up to 50A Magnetic-Thermic circuit breaker for equipment protection Flush-mounted, pluggable and DIN rail mounting



PRODUCT OVERVIEW

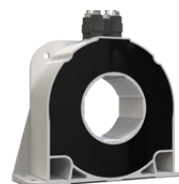
RAILWAY



CURRENT SENSORS



Closed loop
CS series
300 A TO 2000 A
ACCURACY 0.5%



Closed loop
HRS-T series
1000 A TO 2500 A
ACCURACY 0.25%



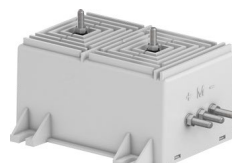
Fully electronic
NCS-T series
4000 A TO 20000 A
ACCURACY 1%

VOLTAGE SENSORS

Electronic technology



VS series
50 V TO 1500 V
SIZE 0



2000 V TO 4200 V
SIZE 1

VOLTAGE DETECTION

Electronic technology

Personal warning from dangerous voltage. Very good visibility thanks to red colored LEDs. Complies with main railway standards.

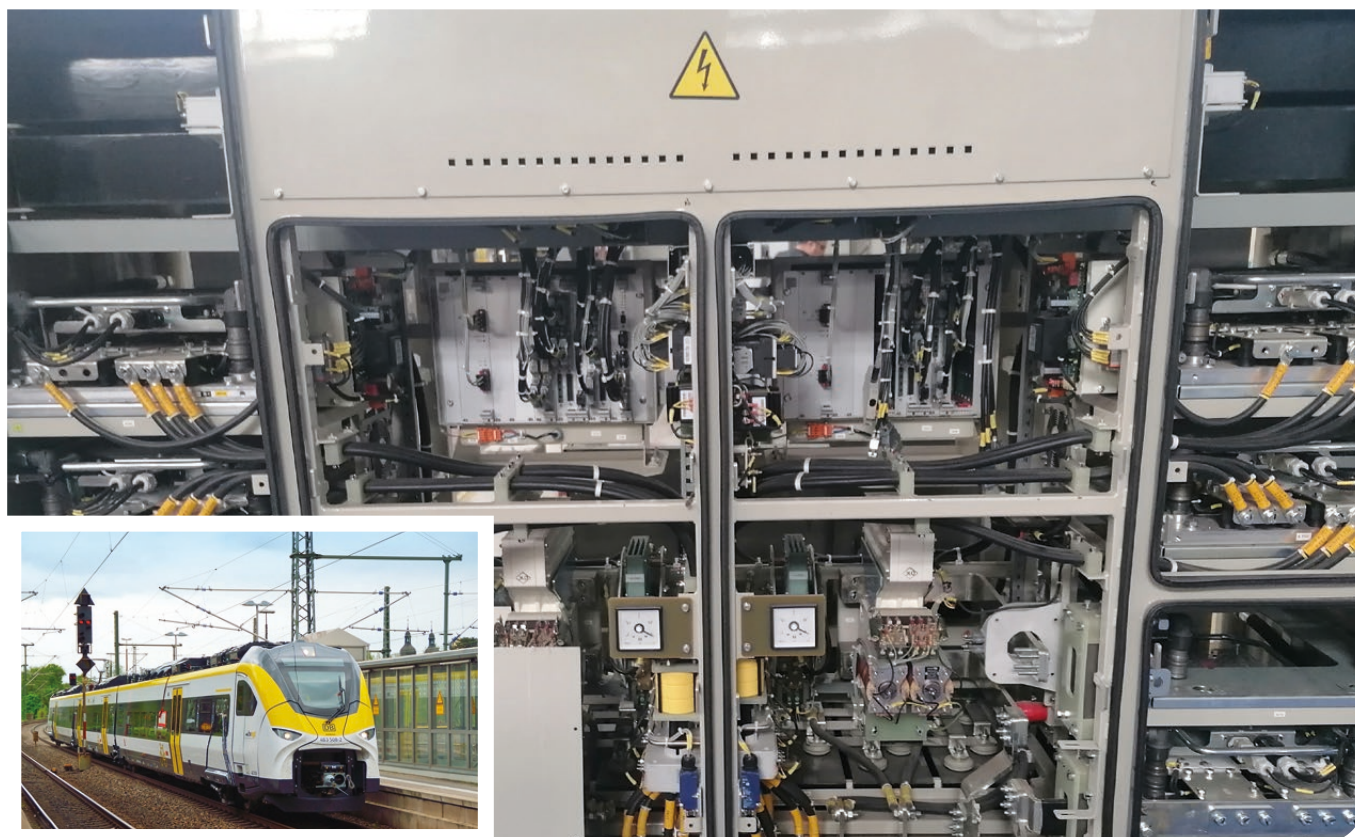


VD 1500-48
1500 VDC
SIZE 0



VD 3000-25
3000 VDC
SIZE 1

RAILWAY



RAILWAY

ROLLING STOCK

Trams, metros, regional and long distance trains use auxiliary converters and electric traction systems requesting a high reliability. PETERCEM SENSORS measures current and voltage to ensure safe and reliable operations for railway systems.

SUBSTATIONS

Substations provide energy and will also store it in the future. Feeding the grid precisely is only possible with reliable measurements.

INDUSTRIAL VEHICLES

Trend such as Mobility, Autonomous driving, Digitalization and Electrification (MADE) are causing fundamental shifts in both technology and business models for leading company in the industrial vehicle sector.

For electrification vehicles or infrastructure makers, our customers can build effective systems, based on PETERCEM SENSORS platform.

INDUSTRY



ENERGY

ENERGY STORAGE SYSTEM

Storing energy will be an important part of future power grids. **PETERCEM SENSORS** precise current and voltage measurements help monitoring the system.

WIND TURBINES

On and offshore wind turbines generate high power. To feed grids precisely, our sensors measure currents and voltages from wind turbines up to 15 MW.

SOLAR

PETERCEM SENSORS measures DC currents from solar farms with high precision and provide reliable monitoring.

INDUSTRY

DRIVES

Electric drives are widely used in everyday life. Precise motion control and energy efficiency are crucial, current sensors play a role in achieving these goals.

UPS

UPS systems need to monitor charging, discharging, and output currents, which requires monitoring with current and voltage sensors.

WELDING

The quality of industrial welding relies heavily on the supply current. Sensors measure and ensure high reliability in industrial processes.

PRODUCT OVERVIEW

INDUSTRY

CURRENT SENSORS

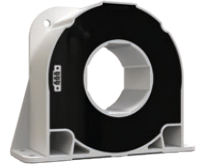
Closed loop

ES series
100 A TO 2000 A
ACCURACY 0.5%



Closed loop

HRS-I series
1000 A TO 2500 A
ACCURACY 0.25%



Fully electronic

NCS-I series
4000 A TO 40000 A
ACCURACY 1%



Open loop

RFCS series
1000 A TO 1500 A
ACCURACY 1%



VOLTAGE SENSORS

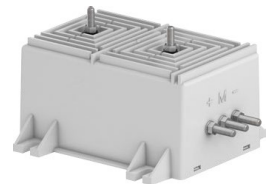
Electronic technology

50 V TO 1500 V
SIZE 0



VS series

2000 V TO 4200 V
SIZE 1



VOLTAGE DETECTION

Electronic technology

Personal warning from dangerous voltage.
Very good visibility thanks to red colored LEDs.

VD 1500-48

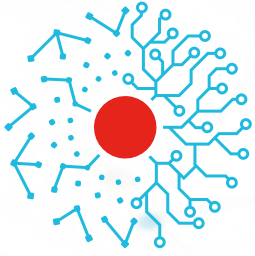
1500 VDC
SIZE 0



VD 3000-25

3000 VDC
SIZE 1





MAFELEC TEAM

CREATING SMART AND
SUSTAINABLE INTERFACES



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