



# CURRENT TRANSFORMER STRIPS AND LOAD MEASUREMENT IN LOW VOLTAGE DISTRIBUTION

BUILDING BLOCKS FOR THE SMART GRID



# LOAD MEASUREMENT IN THE LOW-VOLTAGE GRID

## ADDED VALUE FOR THE GRID OPERATOR

- » Prompt and detailed information about faults and grid failures enable fast and targeted deployment of service teams
- » Information about peak loads and load curves helps with grid expansion planning
- » Heavily loaded grid sections can be monitored specifically for preventive maintenance
- » Monitoring of load conditions can be used for load control, e.g. limitation of power at charging points

## EBG measuring and transducer strips – variants for every measuring application



**The load measuring function is available for all EBG NH2 Fuse-Switch disconnectors**

### Product versions

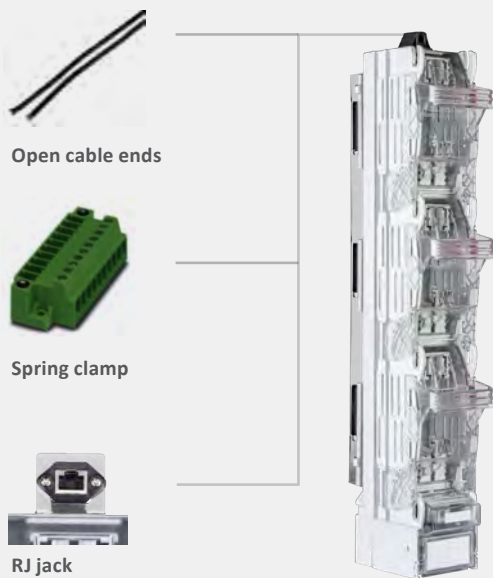
- » Current transformer strip with analog outputs 1A, 5A, or 333mV
- » Metering strip with integrated measuring system for current and voltage with Modbus interface

Variants with built-in transformers or tubular rod transformers for optimal adaptation to the installation in cable distribution cabinets and low voltage distributions in transformer stations.

## Data Sheet

Type	Current transformer bar	Integrated measuring bar (load measurement)
Switch-disconnector type	NH2-fuse switch disconnector	NH2-fuse switch disconnector
Dimensions (HWD in mm)	682x100x199	682x100x162
Transformer type	Tubular bar transducer	integrated above outgoing cable clamps
Current measuring range	100A bis 500A	400A, other versions on request
Current transformer output	1A, 5A, 333mV	Modbus/RTU
Class	1; 0,5; 0,5S; 0,2; 0,2S	1 (complete measuring system)
Voltage measurement	Optional: L1, L2, L3	3-phase L-N
Connectors	Spring clamp Open cable ends RJ jack (only with 333mV output)	Modbus RS485

#### Connection variants at the head of the strip

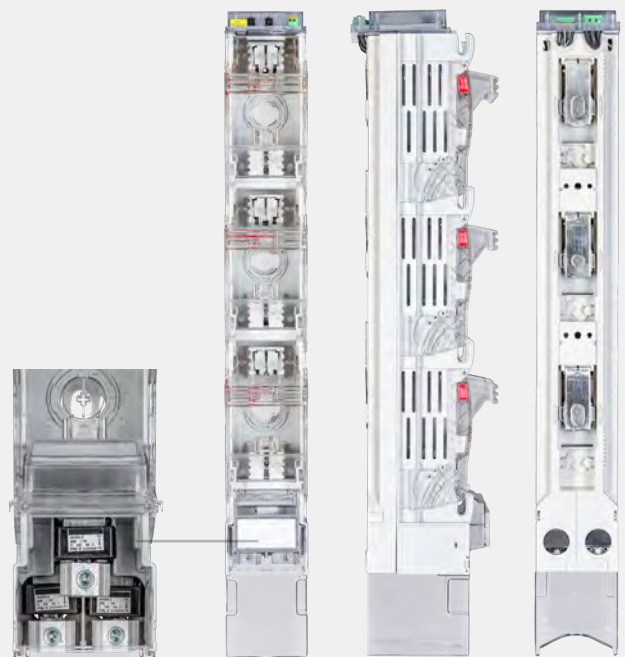


#### The transformer bar is available with many current transformer types

- » Use of standard transformers from renowned manufacturers, resulting in a wide range of variants for every measuring task
- » Tube-rod transformers for mounting on collector slides with insert nuts
- » Feed-through transducers for mounting on bus-bars with stud bolts
- » Accuracy classes 0.5S and 0.2S, on request with Certificate of Conformity according to EU directive 2014/35/EU for billing purposes
- » Wideband terminated current transformer for power quality measurements according to DIN EN 50160

#### The integrated measuring bar, for efficient load measurement, ideal for new installations and retrofit of existing LV distribution panels:

- » NH2 load switching block with integrated measuring device for current and voltage
- » Calculation of S, P, Q, cos phi, THD
- » Output via Modbus
- » Up to 16 strips on one Modbus
- » Minimal cable-connecting effort
- » Integrated current transformers
- » Suitable for installation in low-depth distribution panel
- » No additional wiring in the cable connection compartment
- » Alternatively available with tubular current transformers
- » CAT IV environment according to EN 61439
- » Retrofittable in existing distribution cabinets



These varieties show only a small part of possible configurations.  
For more information, please contact us!