ELECTRONIC CURRENT TRANSFORMER EMVI 4005

FOR HIGH-PRECISION MEASUREMENT OF DC AND AC CURRENTS

APPLICATION

In medium voltage installations such as SVCs, back-to-back stations, DC links and HVDC power transmission systems, it is extremely important to be able to take precise current measurements.

The compact electronic current transformer of type EMVI 4005 is suitable for measuring direct, alternating and mixed currents up to a maximum of 12000 A. The application in medium voltage installations is carried out with the help of an appropriately insulated primary conductor. Especially in the case of a primary current containing DC or high frequency components, the EMVI 4005 offers a suitable alternative to conventional current transformers.

DESCRIPTION AND PRINCIPLE OF OPERATION

The EMVI 4005 represents a compact electronic current transformer for high-precision measurement of DC, AC and mixed currents. It consists of a window type transformer and the associated control electronics. Both are installed on a carrier plate for space saving purpose.

The EMVI 4005 works on the **zero flux principle.** Here, the primary current induces a magnetic flux in the transformer, which is compensated by the current in the secondary winding. This is done by an electronic control that constantly adjusts the secondary current. The secondary current is proportional to the primary current.

PROPERTIES

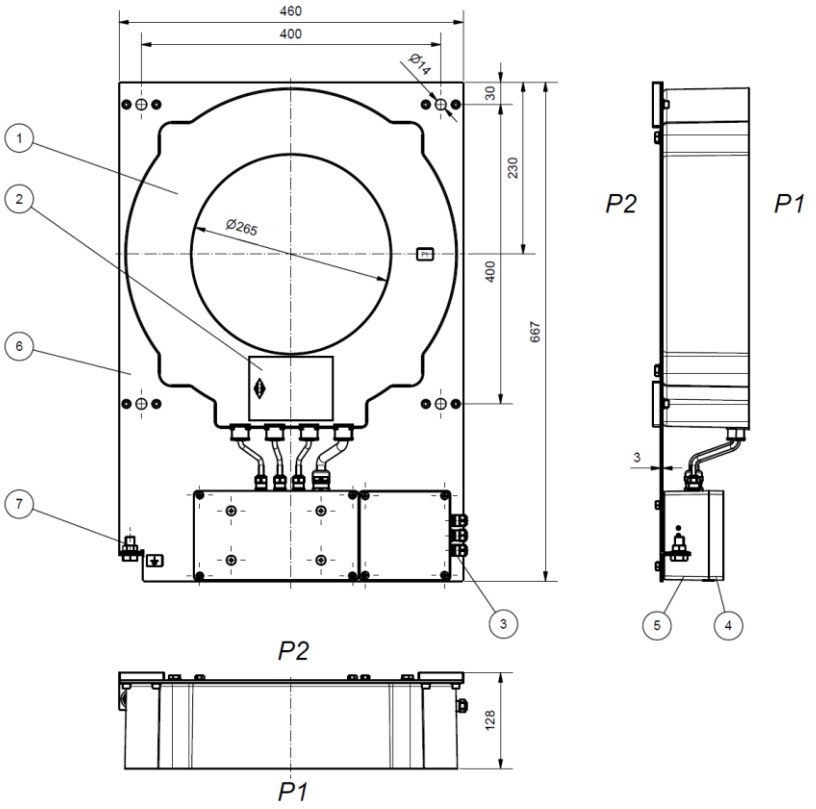
- Power quality analysis
- Protection applications
- Window type transformer
- Wall mounting
- Galvanic isolation
- Saturation and undervoltage control

TECHNICAL DATA

Measured value: Direct, alternating and mixed currents

Highest voltage for operating equipment (fully insulated)	U_m	72.5 kV
Rated insulation level		0.72 / 3 / - / 0.82 kV
Rated primary current	I_{pr}	±4000 A
Rated continuous thermal current	I_{cth}	±8000 A
Max. transient measuring current		±12000 A_{peak}
Rated frequency	f_r	0 Hz I 50 Hz I 60 Hz
Temperature category		-5 °C / +40 °C
Mass		~35 kg
Insulating class		E
Accuracy class DC		0.1
Accuracy class AC		0.2
Rated secondary current	I_{sr}	±1.6 A
Max. transient secondary current		±4.8 A
Rated burden (cable resistance included)	R_{br}	1 Ω
Auxiliary power supply voltage	U_{ar}	±24 V (±5%) DC
Standard		IEC 60044-8 IEC 61869-6

Version: 31.05.2023 TDB 20230010_REV01



1. Cast resin
2. Rating plate
3. Cable gland M12x1,5
   brass nickel plated, for cables Ø5 to 6,5
4. Terminal box lid of aluminium
5. Terminal box of aluminium
6. Base plate, aluminium,
   with connection between terminal
   box and base plate
7. Earthing connection M12,
   M_A: 60 Nm

FOR FURTHER INFORMATION PLEASE CONTACT US

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PRODUCT PAGE

www.ritz-international.com/produktseite

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