

  
DISTRIBUTION SOLUTIONS

# **KOHU Type** Outdoor current transformer



**Weather resistant KOHU current transformer is designed to supply measuring instruments and protection circuits of electric power devices with the highest network permissible voltage up to 24 kV.**

#### Description

For insulation to ground as well as mechanical protection the transformer assembly is cast in hydrophobic cycloaliphatic epoxy resin (HCEP). The HCEP material offers superior electric arc, ozone, and ultraviolet-resistive properties while maintaining mechanical strength. The hydrophobic surface properties of HCEP ensure highly reliable performance in wet or humid environments. The transformer is designed to operate in outdoor conditions (where the air may be polluted by dust, smoke, corrosive gases, vapours or salt). Creepage distance is 780 mm.

The transformer are intended to operate in ambient temperature between  $-40^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$ . The average ambient temperature, measured over 24 hours, should not exceed  $35^{\circ}\text{C}$ . The temperature during transport and storage should be between  $-40^{\circ}\text{C}$  and  $+55^{\circ}\text{C}$ . The assembly height should not exceed 1000 m above sea level. The transformer can be also used in other conditions – upon prior agreement between the manufacturer and the purchaser. KOHU was designed as a single winding transformer with one secondary winding. Secondary winding is used for measuring, protection or special use purposes. One terminal of each winding must be grounded during operation of the transformer.

#### Rated primary current:

150 A; 200 A; 250 A; 300 A; 400 A; 600 A.

Other primary currents possible upon agreement with the manufacturer.

Rated secondary current: 0.1 A; 1 A

Rated frequency: 50 Hz; 60 Hz

#### Terminal

Primary terminals are made of copper and tin coated. The transformer is equipped with 1.6 m cables with properly marked terminals (S1, S2).

#### Baseplate

The baseplate is constructed of hot dip galvanized steel and fix to the bottom of the resin casting.

#### Installation

KOHU can be mounted in a vertical position. It is able to interoperate with NPS type switch.

Example assembly is shown in Figure 1.

#### Routine Test Reports

The test report is stored electronically and can be sent at the time customers request.

#### Compliance with standards

The current transformers are designed, tested and manufactured in accordance with international or national standards as required by the customer and confirmed by the manufacturer. Specific standards are always listed on the rating plate of the transformer. Example: IEC 60044-1.

As agreed upon between the purchaser and the manufacturer, it is possible to deliver transformers complaint with a different standard or standards mentioned above, including arranged modifications.

#### Installation

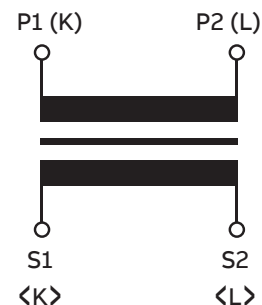
The transformer should be protected with a surge arrester installed from the side of the power line.

#### Warranty

The manufacturer provides a 24-month warranty from the date of first entry into service of the transformers, but not longer than 30 months from date of sale. The warranty covers only manufacturing defects and does not cover damage caused by:

- improper transport,
- improper storage,
- failure to comply with the instructions for storage, installation and operation of the transformers,
- improper selection of the transformer for the electric power system in use.

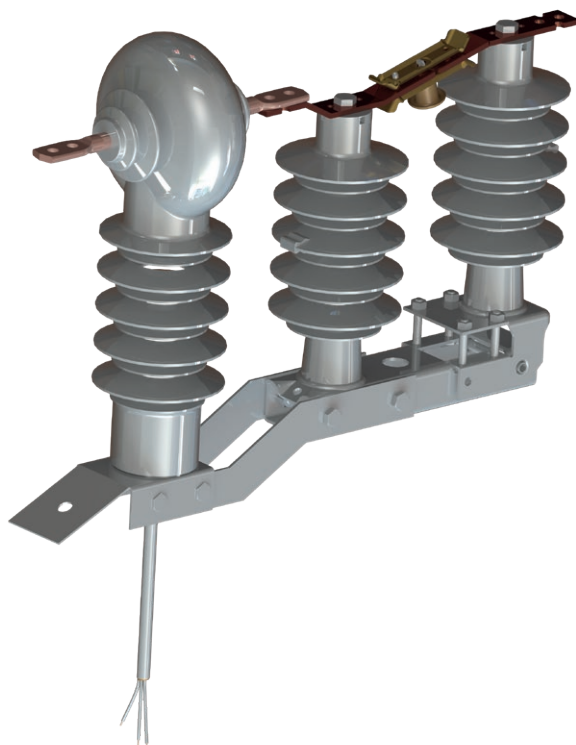
#### Marking diagram:



Current transformer type		KOHU 24 A1	KOHU 24 A2	KOHU 24 A2	KOHU 24 A2	KOHU 24 A2	KOHU 24 A2	KOHU 24 A2
Maximum permissible voltage (Um)	[kV]	24						
Power frequency testing voltage 1 min (the effective value)	[kV]	50						
Rated lightning impulse testing voltage 1.2/50 $\mu$ s (peak value)	[kV]	125						
Rated insulation level	[kV]	24						
Rated frequency (fn)	[Hz]	50/60						
Rated primary current (Ipn)	[A]	400	150	200	200	250	300	600
Rated secondary current (Isn)	[A]	0,1	1	1	1	1	1	1
Burden*	[VA]	0,9	1	1	2,5	2,5	5	3
Accuracy class	[-]	0,5/ 10P20	5P10	5P10	5P10	1FS10	0,5FS5	10P10
Rated short-time (1s) thermal current (Ith)	[kA]	20	25	20	16	16	30	20
Rated dynamic current (Idyn)	[kA]	50	62,5	50	40	40	75	50
Rated long-time thermal current (ext.)	[%]	160	120	120	120	120	120	105
Compliant with the following standards		IEC 60044-1						
Insulation class		E						

\* maximum burden depends on the other parameters.

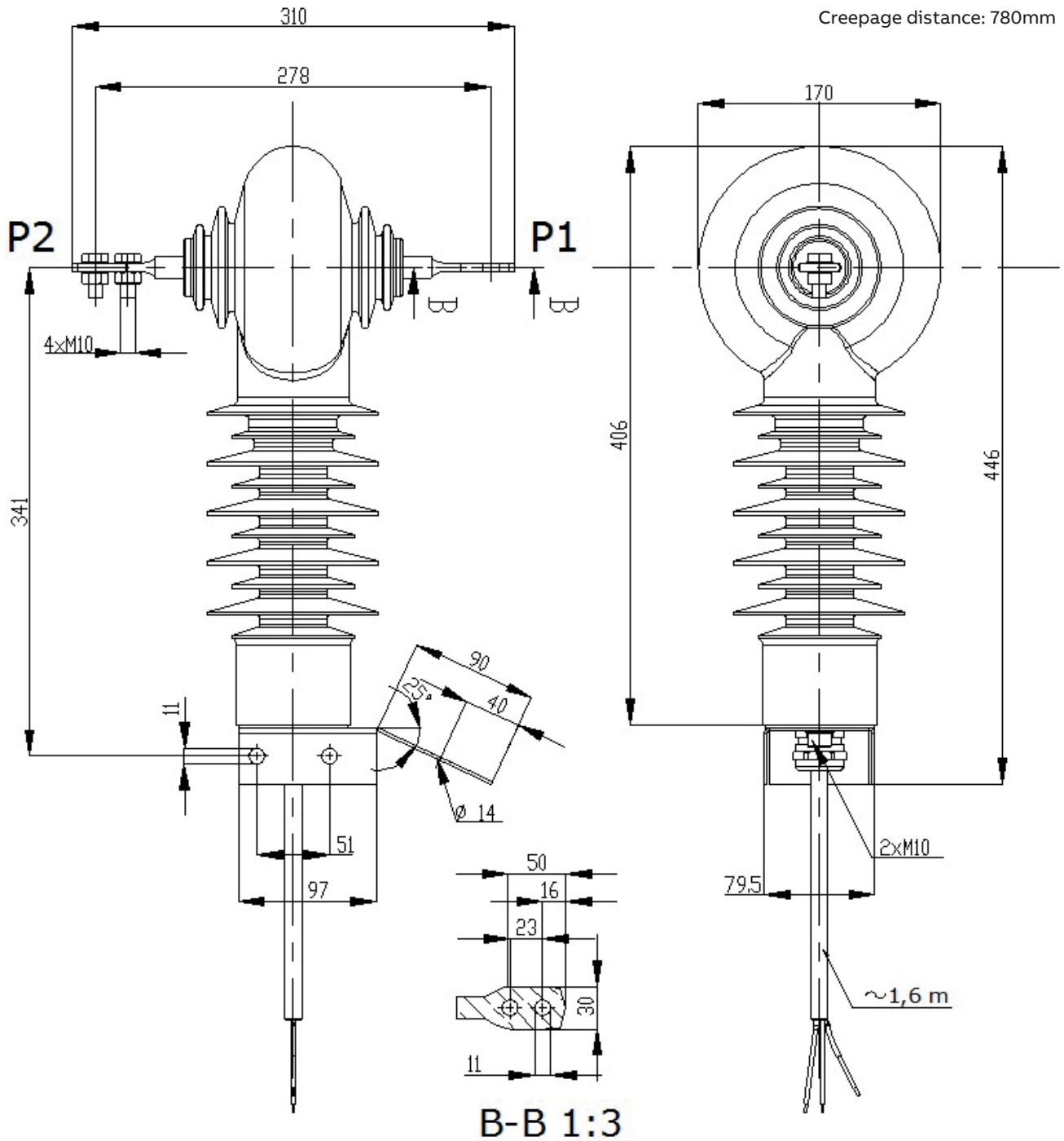
**Figure 1, example of installation of the KOHU current transformer with NPS switch**



## Dimensional drawing

Weight: 7kg

Creepage distance: 780mm



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