Main technical specifications

Name of the parameter	Norm
Rated voltage, U_{nom}, kV	330
The largest operating voltage, kV	363
Test voltage of industrial frequency, kV	560
Switching pulse test voltage, kV	950
Test voltage of full lightning impulse, kV	1175
Rated frequency, Hz	50
Rows of rated primary currents I_{1nom} ,A - of current transformers with the ability of changing the number of turns of the primary winding - current transformers without the possibility of changing the number of turns of the primary winding	200-400-800 300-600-1200 400-800-1600 750-1500-3000 800; 1000; 1200; 1500; 2000; 3000; 4000
Rated secondary current (configuration variants) I_{2nom} ,A	1 and/or 5
The largest operational primary current	See table 10 GOST 7746
Number of secondary windings: - for measurements and accounting - for protection	1, 2 3, 4, 5
Accuracy classes of secondary windings for measurements	0,2S; 0,5S; 0,2; 0,5
Accuracy classes of secondary windings for protection	5P; 10P
Nominal secondary load at cos j_2=0.8, VA	3; 5; 10; 15; 20; 30; 50; 60; 75; 100
Nominal limiting multiplicity of secondary windings for protection by K_{nom}	10; 20; 30; 40
Rated safety factor for devices of secondary windings for measuring and accounting KS_{nom}	5; 10; 15
Thermal stability current It, kA	25[3], 31,5[4], 40[5], (63)[6]
Current of electrodynamics durability Id, kA	64[3], 80[4], 102[5], (160)[6]
Time of thermal stability current flow, seconds	1 (3)
Maximum apparent charge of a single partial discharge, pC, not more	10
Gas leak per year by mass % of gas, not more	0,5
Seismic resistance, MSK-64 scale points	9
Average service life, years, not less than	40
Mean time to failure, hours	$4 \cdot 10^5$
Mass, kg	1000

[1] Three values of rated primary current due to switching on the primary winding.
[2] Secondary windings may have a tap necessary for the required value of the rated primary current.
[3] When current transformers are turned on with a minimum transformation ratio, electrodynamics durability current is 64 kA, thermal stability current 25 kA.
[4] When current transformers are turned on with average transformation ratio, electrodynamics durability current is 80 kA, thermal stability current is 31.5 kA.
[5] When current transformers are turned on with maximum transformation ratio, electrodynamics durability current is 102(160) kA, thermal stability current is 40(63) kA.

Gas-insulated current transformer TOGF 330 kV

Purpose

The current transformer of the TOGF-330 series is designed to transmit a measurement information signal to measuring and protection devices and for control in outdoor switchgear with alternating current 50 Hz and rated voltage of 330 kV.

Design features

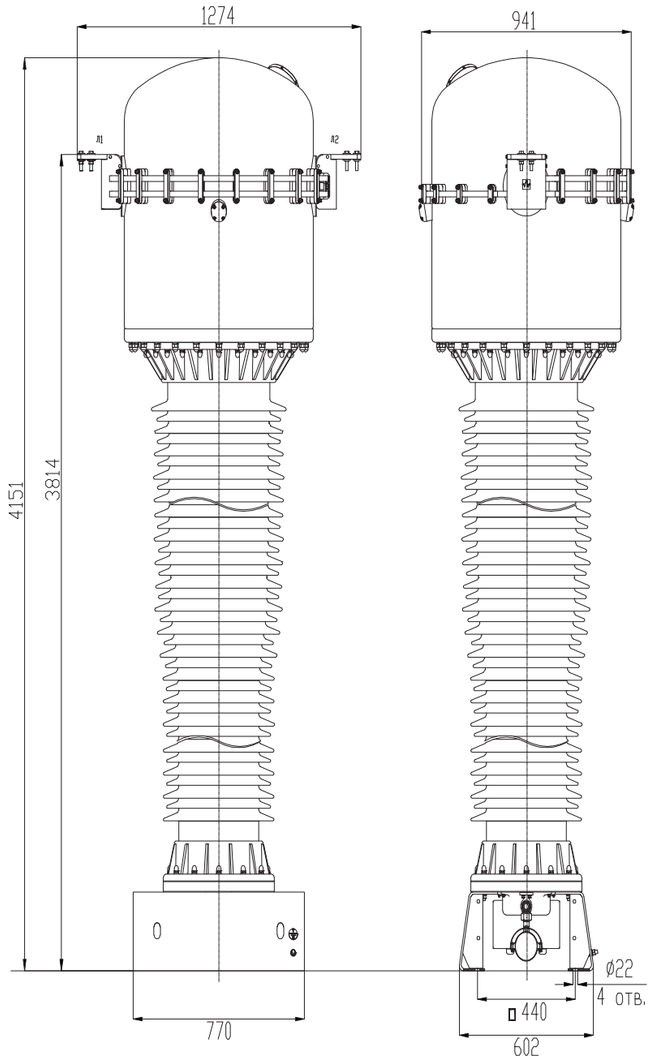
- The current transformer is of explosion-proof design that is provided by the presence of a protective device.
- The current transformer is of fireproof design that is provided by the materials used in construction and non-flammable inert gas.
- The use of gas-insulated insulation with low leakage level.
- The presence of reliable seals to ensure the integrity of the product, including at low air ambient temperatures.
- The use of reliable long-life coatings of steel parts and supporting metal structures of the transformer by hot galvanizing of not less than 100 microns, thermal diffusion zinc.
- Providing the parameters, required by customer.
- The use of reliable components.
- The current transformer requires almost no maintenance.
- Current transformers could be supplied on request with a metal structure of the required height.

CJSC Plant of Electrotechnical Equipment
79, Oktyabrsky Avenue, Velikie Luki Town, Pskov region, Russia, 182113

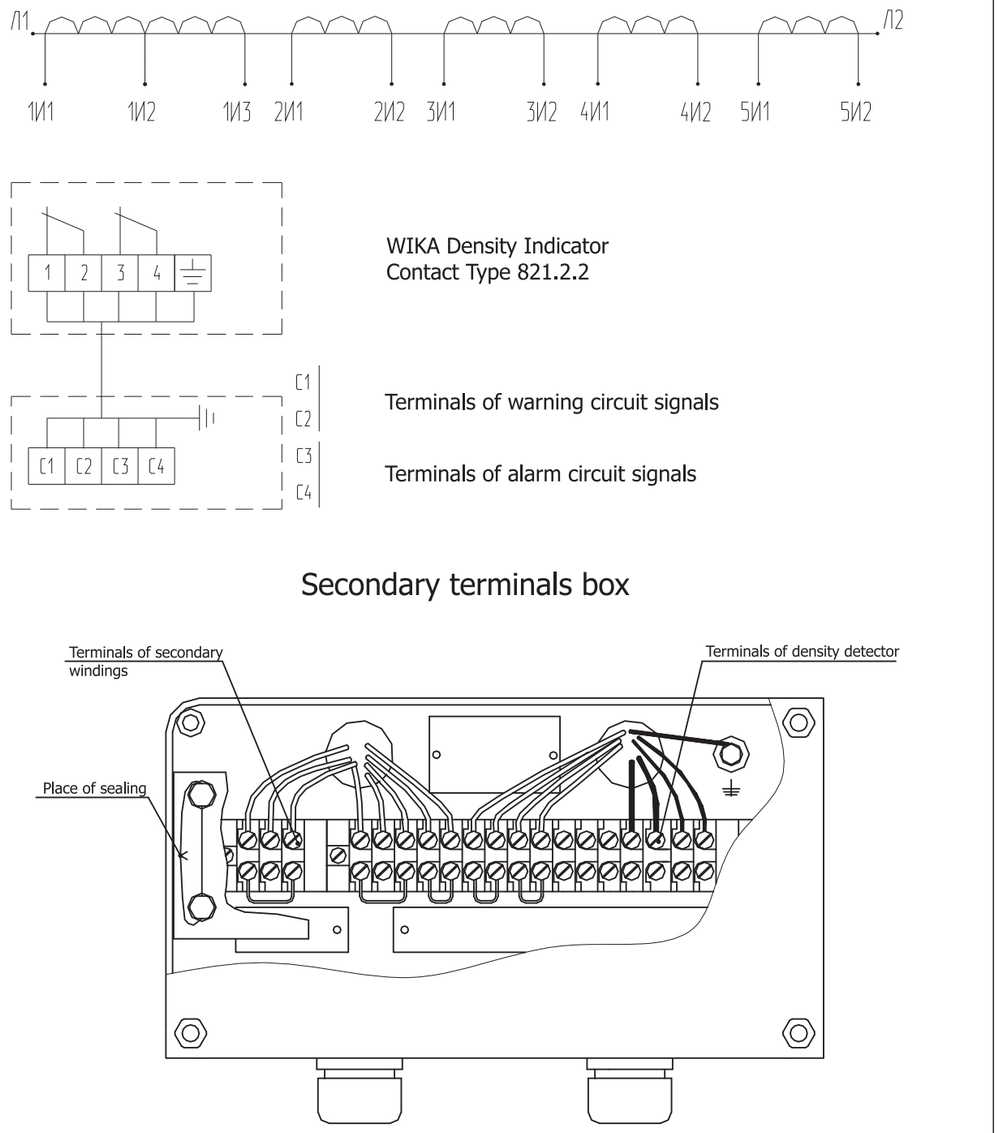
Tel.: +7 (81153) 6-37-72
info@zeto.ru | zeto.ru

CJSC Plant of Electrotechnical Equipment
79, Oktyabrsky Avenue, Velikie Luki Town, Pskov region, Russia, 182113

Overall and installation dimensions



Schematic diagram of electrical connections



Symbolic designation

TOGF-330-X_1-X_2/X_3-X_4-X_5-X_6/X_7-X_8-X_9-X_{10}

T	- Current transformer;
O	- Support version;
G	- Gas-filled;
F	- With a porcelain cover;
330	- Rated voltage, kV;
X_1	- The degree of insulation contamination according to GOST 9920;
X_2/X_3	- Accuracy classes of secondary windings;
X_4-X_5-X_6	- Primary rated currents, A;
X_7-X_8-X_9	- Secondary rated current, A;
X_{10}	- Climatic design and placement category according to GOST 15150.

Terms of use

- The current transformer is designed for operation in macroclimatic areas with a temperate and cold climate (climatic design is U1 and UHL1 according to GOST 15150), at this:
  - the upper operational value of the ambient air temperature plus 40°C,
  - the lower operational value of the ambient air temperature with pure gas filling is minus 45°C,
  - the lower operational value of the ambient air temperature with mixture of gases filling (gas plus nitrogen) is minus 60°C,
  - height above sea level - no more than 1000 m.
- Mechanical load from wind with speeds up to 40 m/s and from the tension of wires in vertical direction to the terminal plane is 1500 N (150 kg) and the horizontal direction to the terminal plane is 1500 N (150 kg).