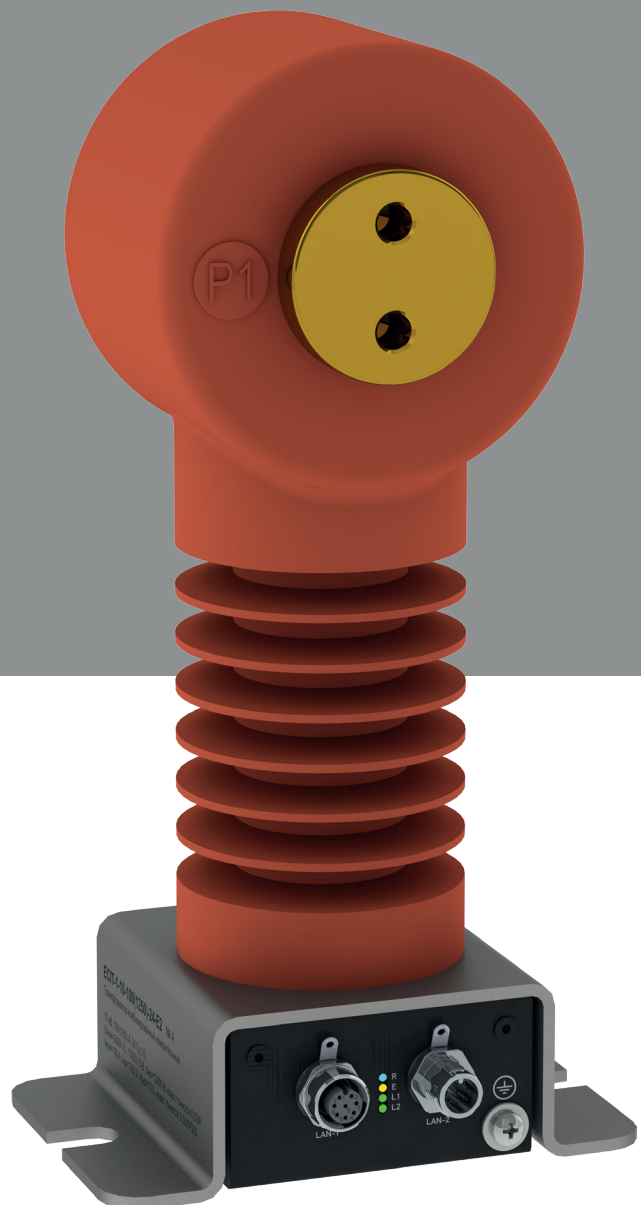


ECIT

Combined instrumental transformer



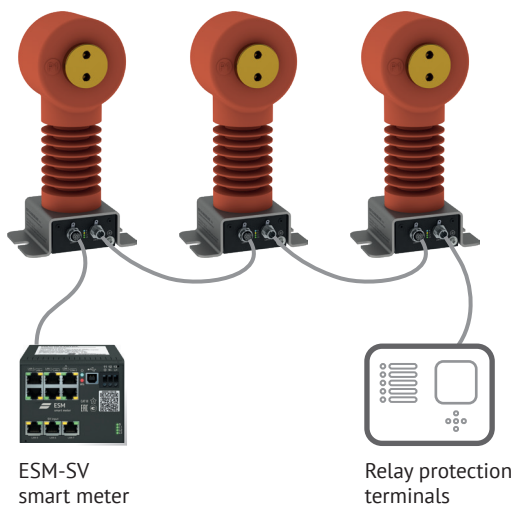
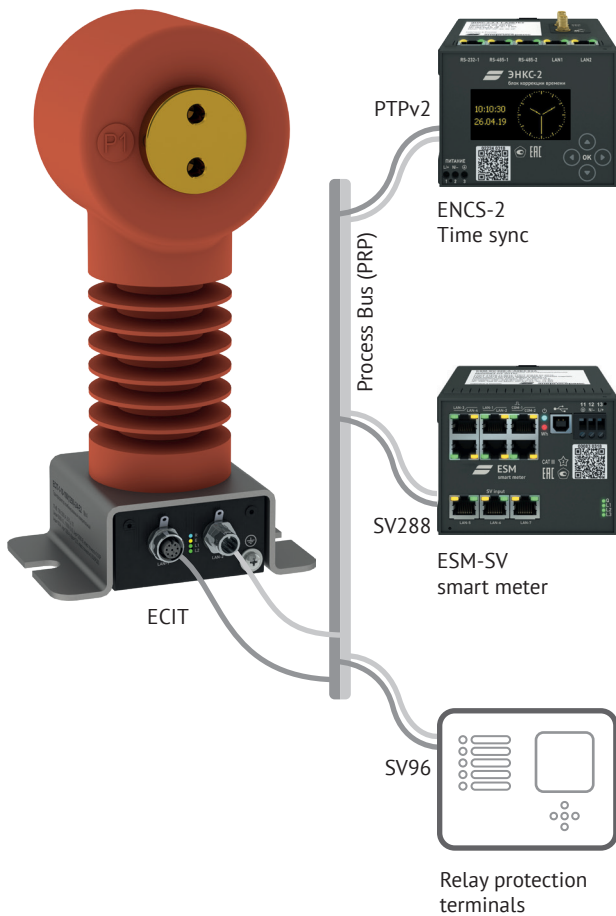
ECIT is a combined single-phase instrumental transformer for medium-voltage switchgear enclosure. ECIT scales current and voltage signals to small, digitalizes and measures them (including with an aperiodic component), and publishes current and voltage values via digital interfaces as a sampled values (SV) to the ethernet network (Process Bus) in accordance with IEC 61869-9.

Unlimited number of devices such as digital relay protection terminals, digital electricity meters, electricity quality control systems etc., which are connected to the process bus, are receiving multicast messages published by ECIT and used them instead of real analog current and voltage signals for measurement, protection and other purpose.

Furthermore, ECIT supports fault recorder function and writes current and voltage waveforms into COMTRADE files with sampling rate up to 14.4 kHz.

General technical specification

Voltage class	10 kV (50 Hz)
Maximum operating voltage	12 kV
Test voltages	28 kV (50 Hz), 1 min
Primary rated current	100 A
Extended rated current	1250 A
Rated short-time thermal current	20 kA, 3 s
Rated surge current	51 kA
Insulation class	A



Metrological characteristics

Rated voltage (U_{pr})	3000/ $\sqrt{3}$...11000/ $\sqrt{3}$ V
for measurement ($0,2 \cdot U_{pr} \leq U \leq 1,2 \cdot U_{pr}$)	accuracy class – 0.5 (IEC 60044-7); ratio error – 0,5%, phase displacement – 20 min
for protection ($0,005 \cdot U_{pr} \leq U \leq 1,9 \cdot U_{pr}$)	accuracy rating – 3P (IEC 60044-7); ratio error – 3%, phase displacement – 120 min
Primary rated (extended) current (I_{pr})	100 (1250) A
for measurements ($0,01 \cdot I_{pr} \leq I \leq 12,5 \cdot I_{pr}$)	accuracy rating – 0.5S (IEC 60044-8); ratio error – 0,75 ($0,01 \cdot I_{pr} \leq I < 0,05 \cdot I_{pr}$), 0,5 ($0,5 \cdot I_{pr} \leq I \leq 12,5 \cdot I_{pr}$), phase displacement – 45 min ($0,01 \cdot I_{pr} \leq I < 0,05 \cdot I_{pr}$), 30 min ($0,5 \cdot I_{pr} \leq I \leq 12,5 \cdot I_{pr}$)
for protection ($I_{pr} \leq I \leq 200 \cdot I_{pr}$)	accuracy rating – 5P (IEC 60044-8); ratio error – 1%, composite error – 5%, phase displacement – 60 min

Communications

Sampling rate	4000, 4800, 12000, 14400 (max – 96000) Hz
Interfaces	2 × 100Base-TX, PRP, RSTP
Communication protocols	IEC 61850-9-2 (SV80, SV96, SV288), C37.118.2 (400 fps), IEC 60870-5-104, PTPv2

Other information

Ambient operating conditions	–45...+50 °C, RH – up to 98 % (+25 °C), 84...106,7 kPa (630...800 mm Hg)
Place of use	Indoor areas up to 1,000 m above mean sea level
Power supply	18...36 V DC, 10 W
Design	270 × 136 × 113 mm, 3,6 kg, IP30

Order code **ECIT-1-10-100(1250)-24-E2**

