Technical Specifications

Safety and environmental conditions

CE marking	LV directive 2014/35/EU RoHS directive (EU) 2015/863
Standard	EN 61010-2-032:2012 WEEE directive 2012/19/EU

This product is designed to be safe under the following conditions:

Location	Indoor use
Altitude	Up to 2000 m
Ambient temperature	-40 °C .. +60 °C
Storage temperature	-20 °C .. +70 °C
Relative humidity	5% .. 85%, non condensing
Pollution degree	2
Degree of protection	IP20

The TQ is only suitable for insulated primary conductors.

Specifications

Standard	IEC 61869-2:2012
Rated short-time thermal current (Ith)	60 x Ipr / 1 s
Rated dynamic current (Idyn)	2.5 x Ith
Rated continuous thermal current (Icth)	100%
Rated insulation level	0.72/3/- kV
Rated frequency	50/60 Hz
Class of insulation	E (120 °C)
Material (housing)	PC,UL94:V2
Torque	1.5 -2.2 Nm

Specifications per type

	TQ105 no filling	TQ105 1 filling	TQ105 2 fillings	TQ105 3 fillings
Suitable for cable	ø 31 mm	ø 51 mm	ø 71 mm	ø 91 mm

Please be aware, product liability, fulfilment to requirements and warranty are all expired when modifications on the product are made. Printing and typographical reserved.

ELEQ reserves the right to carry out modifications on its products, in order to improve them, without prior notice.

Safety instruction

All activities for installation, commissioning and maintenance of this current transformer must be performed by qualified personnel that have the knowledge of applicable safety precautions. This guide assumes that the reader of this document has sufficient electro-technical knowledge to understand the content of this document.

General

The TQ split-core is a current transformer (CT) and can only be used measuring electrical alternating currents. The TQ is suitable only for mounting on insulated primary conductors in a weather protected and dry location.

Explanation of symbols

This product is designed according to the EN 61010-2-032:2012 standards and therefore this product meets the requirements of the Low Voltage Directive 2014/35/EU.

Read the installation guide before mounting the product. Unprofessional work activities on electrical installations may result in a threat of danger to the life and health of human beings and livestock!

Under no circumstances the secondary circuit of the CT may be opened when the CT is closed and current is flowing in the primary circuit. High voltages may appear on the secondary leads when this circuit is left open.

RoHS Directive (EU) 2015/863
ELEQ states that they only uses qualified components in their products from manufacturers, whose specifications meet or exceed the requirements of the European Directive for the Restriction of use of certain Hazardous Substances.

WEEE Directive 2012/19/EU
The 'crossed out wheeled bin' symbol indicates that the equipment should not be disposed as unsorted municipal waste. Contact a qualified recycler for disposal.

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84139 / EN2405

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TQ Split-Core Current Transformer
Installation Guide

TQ105 (4Q10xxx)

Read this installation guide before installing the product

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Always avoid working on live parts of an installation.

Mounting instruction

In order to mount this CT 4 spring fitted screws need to be placed and tightened with a M5 Hex / Allen key conform torque specifications.

Assembly

Under no circumstances the secondary circuit of the CT may be opened when the CT is closed and the current is flowing in the primary circuit. High voltages may appear on the secondary leads when this circuit is left open.

1. Ensure a safe working area during assembly, maintenance and inspection of the CT. If necessary, disconnect the power of the primary circuit and make sure it can not be enabled unintentionally.

2. Find the power direction of the primary. It is recommended to mount the P1 side to power source and the P2 side to power consumer. If the CT is installed like this, the arrow on the CT will indicate the direction of the power flow.

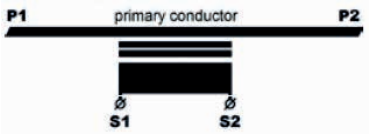
3. Connect the secondary leads (S1, S2) to the TQ terminals. Ensure that the leads are capable of carrying the current output of the CT.

4. Connect the secondary leads (S1, S2) to the low impedance current input of the measurement instrument (e.g., an ammeter or current input of kWh-meter).

5. To mount the CT, use the Allen key to securely fasten the screws in a crisscross pattern.

6. Enable the primary circuit if necessary.

Wiring Diagram



Maintenance and inspection

- Check whether the secondary leads are connected firmly.
- Check whether the CT is closed properly.
- Check whether the CT is mounted firmly.
- Remove severe pollution on the casing. Contact with moisture, especially with the core, must be avoided.

Attention

Do not touch the core surfaces by hand: skin acid may damage the core.

Temporarily disconnecting the CT

The secondary leads of the CT always have to be connected to a low impedance burden such as an ammeter. When during maintenance, no burden is available to connect to, the secondary leads of the CT (the two secondary terminals) must be short-circuited. Before changing the secondary circuit the CT core shall be opened.

Problem solving

e.g. unexpected values or incorrect values , reversed power,

- Check the settings of the meter by using the installation guide of the meter.
- Check whether the CT is mounted on the intended cable in the right direction.
- Check if the CT is closed properly.
- Check the value of the secondary burden (secondary leads length/diameter and meter impedance). See product/data sheet for the maximum burden value.
- If previous points did not solve the problem: Check carefully whether there is dust or other pollution present between the two parts of the core. In case there is pollution, the core surfaces can be cleaned with a lint free cloth and then protected with an extremely thin layer of acid free petroleum jelly (Vaseline).

Attention

Always follow the disassembling instructions when reversing the CT.

Disassembly instruction

1. Ensure a safe working area during disassembling the CT. If necessary, disconnect the power of the primary circuit and make sure it cannot be enabled unintentionally.

2. Open the CT by removing the screws.

3. Disconnect the secondary leads from the measurement instrument.

4. Disconnect the secondary leads from the meter.

5. Enable the primary circuit if is necessary.

Recycling

When the product has reached ‘end of life’, it must be recycled. Do not dispose this product as unsorted municipal waste. Contact a qualified recycler for disposal.