

Technical Specifications

Safety and environmental conditions

CE marking	LV directive 2014/35/EU RoHS directive 2011/65/EU
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 2000m
Ambient temperature	-10 °C .. +55 °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 / 1s
Rated dynamic current (Idyn)	2.5 x Ith
Rated continuous thermal current (Icth)	100%
Rated insulation level	0.72/3/-kV
Rated frequency	50/60Hz
Class of insulation	E (120°C)
Material (housing)	PA 6.6, UL94: V2

Specifications per type

	EEM-CT-150-5 200-5 250-5	EEM-CT-300-5 400-5 500-5	EEM-CT-600-5 750-5 1000-5	EEM-CT-1000-5-L
Suitable for cable	ø 18mm	ø 28mm	ø 42mm	2x ø 42mm
Secondary leads length for 0.5mm ²	3m	3m	5m	5m
Approximate weight	360g	310g	525g	725g
Secondary leads format	0,5 meter ø1.5mm	0,5 meter ø1.5mm	3 meter ø1.5mm	3 meter ø1.5mm
Approximate weight	300g	250g	650g	850g

Please be aware, product liability, fulfillment 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 instructions

All activities for the installation, commissioning, and maintenance of this current transformer must be performed by qualified personnel with a knowledge of applicable safety precautions. It is assumed that the reader of this document has sufficient electro-technical knowledge to understand the contents of this document.

General

The TQ split-core is a current transformer (CT) and can be used only to measure electrical alternating currents. It 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 meets the requirements of the Low Voltage Directive 2014/35/EU.
	Do not apply around or remove from UNINSULATED HAZARDOUS LIVE conductors, which may render electric shock, electric burn, or arc flash.
	Read this Installation Guide before mounting the product. Unprofessional work activities on electrical installations may endanger the life and health of human beings and livestock!
	Under no circumstances may the secondary circuit of the CT be opened while the CT is closed and current is flowing in the primary circuit. High voltages may appear on the secondary leads if this circuit is left open.
	RoHS Directive 2011/65/EU ELEQ states that they use only 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 of as unsorted municipal waste. Contact a qualified recycler for disposal

Manufactured for and on behalf of the Connected Building Division of Honeywell Technologies Sàrl, Rolle, Z.A. La Pièce 16, Switzerland by its Authorized Representative:

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EEM-CT Split-Core Current Transformer Installation Guide



EEM-CT-150-5
EEM-CT-200-5
EEM-CT-250-5
EEM-CT-300-5
EEM-CT-400-5
EEM-CT-500-5
EEM-CT-600-5
EEM-CT-750-5
EEM-CT-1000-5
EEM-CT-1000-5-L

Read this Installation Guide before installing the product!

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Always avoid working on live parts of an installation!

Mounting instruction

No special tools are required to install a current transformer (CT) of the TQ series. To correctly connect the CT to the meter, please consult the meter's Operating Guide.



Assembly

Under no circumstances is the secondary circuit of the CT to be opened while 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.

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 cannot be enabled unintentionally.
2. Find the power direction of the cable you want to measure. It is recommended that you mount the P1 side to the power source and the P2 side to the power consumer. When installed like this, the arrow on the CT will indicate the direction of the power flow.
3. Open the CT and mount it on the cable using cable ties.

Attention: Do not close the CT. High voltages may otherwise appear on the open secondary leads!

Attention!

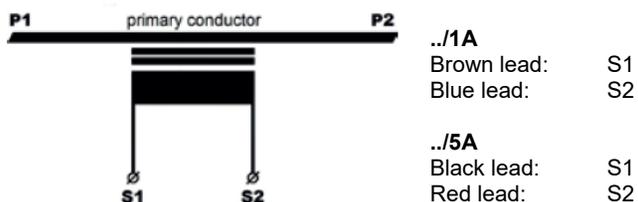
Do not touch the core surfaces by hand: Skin acid may damage the core. Avoid dust on the core surfaces.

For mounting the TQ50

For the TQ50-E and the TQ50-L the top-part of the transformer can be removed entirely, which makes it even easier to install the transformer. Attention: If the two parts are separated, ensure that they are securely fixed together again. If you mix different transformer parts, the measurement class cannot be guaranteed.

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. Close the CT only when you are sure that the secondary leads are connected to the current input of the measurement instrument. The CT is properly closed when you hear a 'click'.
6. Enable the primary circuit if necessary.
7. Check if the CT is mounted and closed properly. Check if the secondary leads are connected properly and firmly.

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 heavy contamination 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 must always be connected to a low-impedance burden such as an ammeter. If, during maintenance, no burden is available for connection, the secondary leads of the CT (the two secondary terminals) must be short-circuited.

Problem solving

E.g. unexpected values or incorrect values, reversed power:

- Check the meter's wiring, fuses, and settings in accordance with the meter's Operating Guide.
- Check to ensure that the CT is mounted on the intended cable in the correct direction.
- Check to ensure that the CT is closed properly.

- Check the value of the secondary burden (secondary leads length-, diameter-, and meter-independent). See product / data sheet for the maximum burden value.
- If the previous actions do not resolve the problem: Check carefully to ensure that there is no dust or other contamination present between the two parts of the core. If contamination is present, clean the core surfaces with a cleaning tissue and then apply an extremely thin layer of acid-free petroleum jelly (Vaseline).

Attention!

Always follow the disassembling instructions when reversing the CT.



Disassembly instruction

Tools are only required for removing the cable ties of the CT.

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.
3. Disconnect the secondary leads from the measurement instrument.
4. Remove the cable ties. Ensure that the insulation of the primary conductor is not damaged when removing the cable ties. Remove the CT.
5. If necessary, enable the primary circuit.

Recycling

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