

Technical Specifications

Safety and environmental conditions

CE marking	LV directive 2014/35/EU
	RoHS directive (EU) 2015/863
Standard	EN-IEC 61010-1:2010
	WEEE directive 2012/19/EU

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

Location	Indoor use
Altitude	Up to 2000 m (1,24 mi)
Ambient temperature	-10 °C to +55 °C (14 °F to 131 °F)
Storage temperature	-20 °C to +70 °C (-4 °F to 158 °F)
Relative humidity	5% to 85%, non condensing
Pollution degree	2
Degree of protection	IP20

The CT27 is only suitable for insulated primary conductors.

Specifications

Standard	IEC 61869-2:2012
Rated short-time thermal current (I _{th})	60 x I _{pr} / 1s
Rated dynamic current (I _{dyn})	2,5 x I _{th}
Continuous thermal current (I _{cth})	100%
Rated insulation level	0,72/3/- kV
Rated frequency	50/60 Hz
Class of insulation	A (105 °C / 221 °F)
Secondary terminal	Female clamping connector, suitable for conductor size: 0,2 to 1,5 mm ² solid, stranded or ferruled (Strip length 8 to 9 mm) (0.315 to 0.354 in)

Specifications per type

	CT27			
Secondary leads format*	0,5 mm ² max. 1,4 m (55 in)	0,75 mm ² max. 2,0 m (79 in)	1,0 mm ² max. 2,8 m (110 in)	1,5 mm ² max. 4,0 m (157 in)
Suitable for cable	ø 7,5 mm (0.295 in)			
Approximate weight	40 g (0.088 lb)			

* Maximum length secondary leads for 0,1 VA at the end of this leads.

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

Explanation of symbols



This product is designed according to the EN-IEC 61010-1:2010 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 mounted on a primary current 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

Janitza electronics GmbH states that they only uses qualified component 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.

Janitza®

CT27 Current Transformer Installation Guide



CT27-35 CT27-64

General

The CT27 is a current transformer and can only be used measuring electrical alternating currents. The CT27 is suitable only for mounting on insulated primary conductors in a weather protected and dry location.

Read this installation guide before installing the product.

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WARNING

Risk of injury due to electric voltage or electrical current!

When handling electrical currents or voltages, serious personal injuries or death can occur due to:

- Touching live exposed or stripped cores.
- Device inputs that are dangerous to touch.

Before starting work on your system:

- **Disconnect it from the power supply!**
- **Secure it against being switched back on!**
- **Verify disconnection from power!**
- **Ground and short circuit!**
- **Cover or block off neighboring parts that are under voltage!**

Qualified personnel

To prevent personal injuries and property damage, only qualified personnel with electrical engineering training may work on the base unit and its components. They must also have knowledge

- of the national accident prevention regulations.
- of safety technology standards.
- in the installation, commissioning and operation of the device and the components.

Mounting instruction

Tools are only required connecting the primary cable running through the Current Transformer. To connect the CT to the meter correctly, please consult the installation guide of the meter.



Assembly

Under no circumstances the secondary circuit of the CT may be opened when 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. Disconnect the power of the primary circuit and make sure it can not be enabled unintentionally.

2. Find the power direction of the cable you want to measure. It is recommended to mount P1 side to power source and P2 side to power consumer. If so the arrow on the CT will indicate the direction of power flow.

3. Mount the CT on the cable. The CT27 can be mounted stand-alone and clicked on each other. Optional: screw mounting or mounting on a DIN-rail via the mounting clip (Snap-on mounting) (09.09.010).

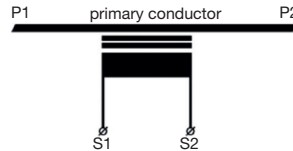
4. Reinstall the primary conductor.

5. 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). For more information about the secondary leads, please consult the specifications table under 'Technical Specifications'.

6. Check if the CT is mounted properly. Check if the secondary leads are connected properly and firmly.

7. Enable the primary circuit.

Wiring Diagram



Accuracy

The CT may not meet its accuracy specification when the secondary burden is too high. For example due to a secondary cable which is too long or too thin.

Maintenance and inspection

- Check whether the secondary leads are connected firmly.
- Check whether the CT is mounted firmly.
- Remove severe pollution on the casing.

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.

Problem solving

Unexpected values, incorrectly 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 the value of the secondary burden (secondary leads length/diameter and meter impedance). See product/data sheet for the maximum burden value.

Attention

Always follow the disassembling instructions when reversing the CT.



Disassembly instruction

Tools are only required disconnecting the primary cable running through the CT27. To disconnect the meter from the CT, please consult the installation guide of the meter.

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

2. Dismount the CT from the primary conductor.

3. Disconnect the secondary leads from the measurement instrument.

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.