

## 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 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 RM27 is only suitable for insulated primary conductors.

### Specifications

Standard	IEC 61869-2:2012
Rated short-time thermal current (I <sub>th</sub> ):	60 x Ipr / 1s
Rated dynamic current (Idyn)	2,5 x Ith
Continuous thermal current (I <sub>cth</sub> )	100%
Rated insulation level	0,72/3-kV
Rated frequency	50/60Hz
Class of insulation ( see rating plate)	E (120°C) or A (105°C)
Secondary terminal	Female clamping connector picoMAX3.5 Wago, suitable for conductor size: 0,2 .. 1,5mm <sup>2</sup> solid, stranded or ferruled (Strip length 8 .. 9 mm)

### Specifications per type

	RM27			
Secondary leads format*	0,5mm2 1,4meter	0,75mm2 2,0meter	1,0mm2 2,8meter	1,5mm2 4,0meter
Suitable for cable	ø 7,5			
Approximate weight	40g			

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

## 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 RM27 is a current transformer (CT) and can only be used measuring electrical alternating currents. The RM27 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-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

ELEQ 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.



mastering electricity  
worldwide

## RM27 Current Transformer Installation Guide



**RM27**  
**Mounting Clip**

(4R27xxx)  
(411884)

*Read this installation guide before installing the product*

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

*Always avoid working on live parts of an installation.*

## 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 RM27 can be mounted stand-alone and clicked on each other. Optional: screw mounting or mounting on a DIN-rail via the mounting clip (411884).

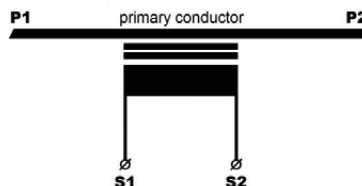
4. Reinstall the primary conductor.

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.

## Attention

Always avoid working on live parts of an installation.

## 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

e.g. 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 impendent). 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 RM27. 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.
4. Reinstall the primary conductor.
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.