Environment

Install the summation current transformers in a dry and dust free environment.

If you do not install the transformer immediately, then store it in the original shipping package in a dry and dust free environment.

The operation temperature range is -5 to +50 °C.

NOTICE

Warranty

The transformer is not to be opened by unauthorised personnel. If opened anyway, the warranty will be lost.

Installation

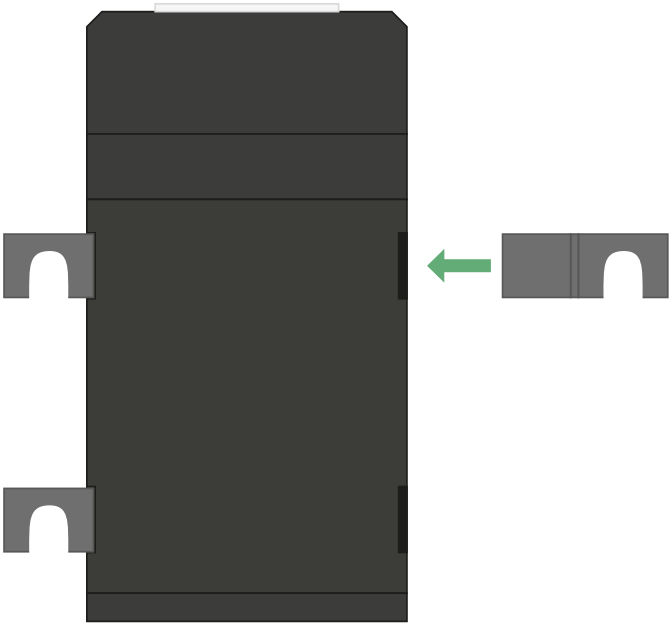
DANGER!

No live voltages

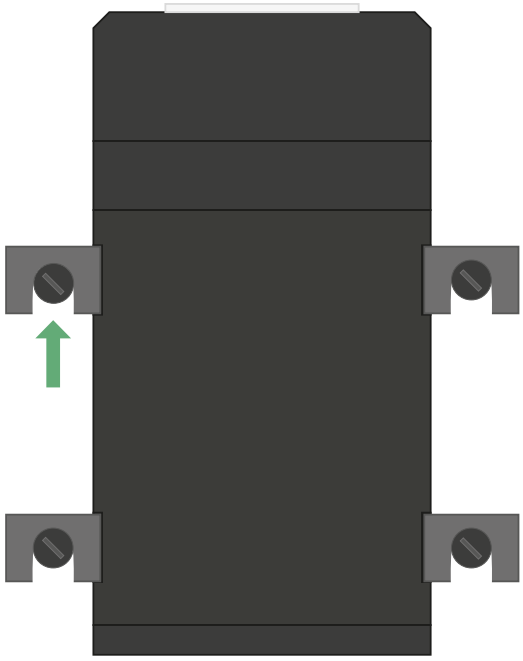
Make sure the summation transformers are not connected to live voltages before you carry out the installation. Failure to so can lead to injury or death.

The summation transformers are designed to be mounted on a panel wall.

1. Insert the installation clips into the slots on the sides of the transformer. Push tightly until the clips click into place.



2. Insert the screws and tighten them.



CAUTION

Safety during installation and operation

The installation must only be carried out by authorised personnel who understand the risks involved in working with electrical equipment.

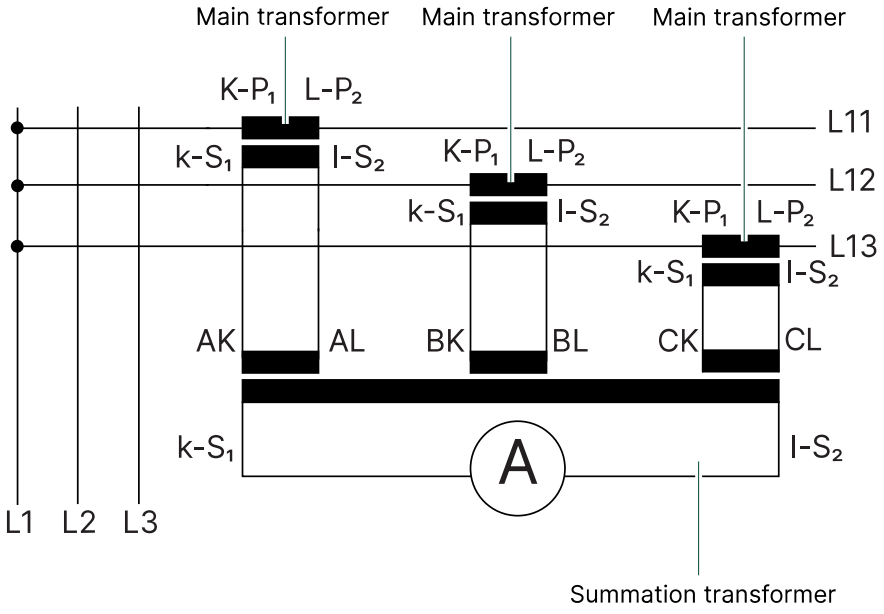
DANGER!

Hazardous voltages

During operation with an open secondary circuit dangerous voltages may flow through the secondary connections. It is therefore not allowed to use the summation transformers in an open secondary circuit. You must short-circuit the secondary connections before you remove the transformers and measuring devices.

Wiring

Summation current transformers are suitable for the summation of several synchronized alternating currents with similar phases but with differing load phase shifts. The connections from the secondary side of the main transformers are connected to the equivalent input on the primary side of the summation transformer.



P_1: Current source side

P_2: Load side

K, L, P_1, P_2: Connections for the primary windings

k, l, S_1, S_2: Connections for the secondary windings

The direction of the flow of energy must be from K to L.

In applications with main transformers that have different nominal transmission ratios, make sure you connect the main transformers to the correct terminals on the summation transformer.

Do not short circuit the secondary side of the main transformers or connect them to the summation transformer when a primary current is present.

Counter connection

To receive secondary currents that are proportional to the difference between the primary current inputs, counter connect the main transformer to the summation transformer.

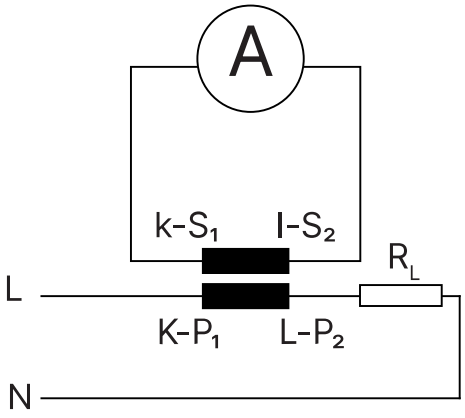
Unused primary circuits

If a summation current transformer have primary circuits that are not used, these circuits must stay open so an additional main transformer can be added subsequently. Theses transformers have a lower secondary output current compared to the secondary nominal current. The difference between the two current values is equal to the ratio of the primary current of the missing additional main transformer to the sum of all the primary nominal currents of the main transformer.

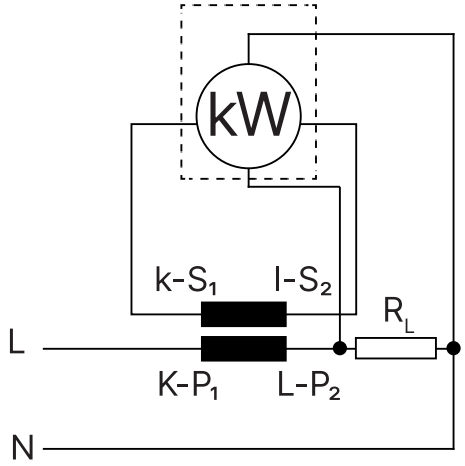
NOTE The nominal secondary current of the main transformer must be equal to the nominal primary current of the summation current transformer.

Wiring examples

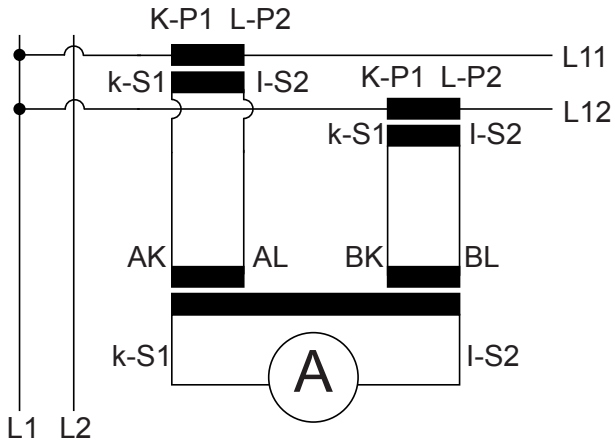
Measuring circuit



Counting circuit, single phase



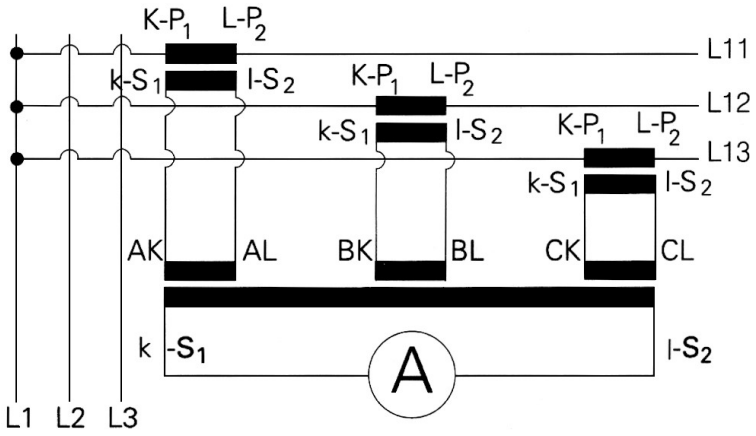
KSU 2



Example

- AK-AL: 1000/5
- BK-BL: 800/5

KSU 3



Example

- AK-AL: 1000/5
- BK-BL: 800/5
- CK-CL: 600/5

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See the **Data sheet** for information about technical specifications.