CMTAC 1

OMICRON

AC to DC trigger rectifier

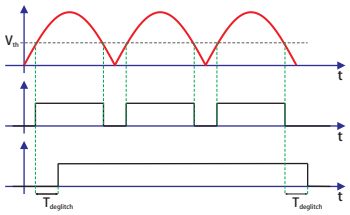
Safety instructions

- Before operating the device, make sure that you have read this document and the Safe Use manual of the CMC test set and fully understood all instructions.
- Never use the *CMTAC 1* to measure directly at mains circuits. The *CMTAC 1* is not rated for any measurement category.
- Use the *CMTAC 1* exclusively in conjunction with the OMICRON test sets mentioned in "Designated use". The manufacturer is not liable for damage resulting from unintended usage. If in doubt, contact OMICRON Support.
- If the device or any accessory is damaged or does not seem to function properly, do not use it.
- Do not open the *CMTAC 1* or remove any of its components.

Designated use

The *CMTAC 1* is an accessory for OMICRON *CMC 356*, *CMC 256plus*, *CMC 353*, and *CMC 310*. The *CMTAC 1* operates as an AC/DC trigger rectifier.

Description



The bridge rectifier of the *CMTAC 1* converts an AC input voltage into a DC pulsating voltage. The output of the *CMTAC 1* is connected to a binary input of the CMC test set. To use the *CMTAC 1* as a trigger source, use the deglitch function of the binary input. Otherwise the CMC test set would trigger on every half wave of the voltage signal.

⚠ WARNING

Death or severe injury due to arc blast

The N sockets of the binary/analog input groups are internally connected (e. g. 1 with 2, 3 with 4). This could lead to a short circuit of the connected voltage signal over the *CMTAC 1*.

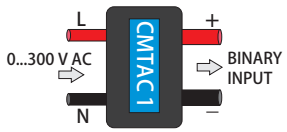
The *CMTAC 1* does not have internal protection against short circuits.

A damaged *CMTAC 1* could lead to a short circuit of the voltage signal under test.

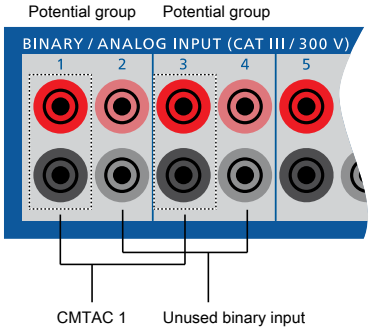
- When measuring a voltage signal with the *CMTAC 1*, use only one binary input of a potential group. Do not connect the second input of the group.
- Always ensure that the connected voltage signal is protected by a fuse or MCB rated 6 A or lower.
- Use safety test leads with fuse if the rated current of the fuse or MCB protecting the voltage signal under test could otherwise exceed 6 A.
- Verify correct functionality of the *CMTAC 1* by using the CMC voltage outputs before connecting it to the test object.

UK importer: OMICRON electronics UK Limited, Staples, Close, Redhill Business Park, Stafford, ST16 1WQ, United Kingdom
Manufacturer: OMICRON electronics GmbH, Oberes Ried 1, 6833 Klaus, Austria
ENU 1179 03 02

Connecting the CMTAC 1 to the CMC test set



- ▶ Connect 0…300 V AC at the input of the *CMTAC 1*.
- ▶ Connect its DC output to the BINARY INPUT of the CMC test set.



Recommended settings

To trigger on 50/60 Hz AC voltage signals, use the following settings:

- $V_{th} = V_{nominal}/3$
- $T_{deglitch}$ = 3 ms
- $T_{debounce}$ = 0 ms

Example:

- $V_{nominal}$ = 230 V (nominal voltage)
- $V_{th} = V_{nominal}/3 = 230/3 = 77$ V (threshold voltage)

- ▶ Set the **Debounce time** and **Deglitch time** in the **Device** settings of the **Test Object**.
- ▶ Set the **Nominal Range** and the **Threshold** for the corresponding binary input in the **Hardware Configuration**.

For further support, refer to the Help of the software.

Technical data

Description	Data
Maximum voltage	300 V_{AC}
Maximum permissible short circuit current	6 A
Maximum overvoltage	1 000 V
Operating temperature	0 … 50 °C (32 … 122 °F)
Storage temperature	25 … 70 °C (77 … 158 °F)
Maximum altitude	2 000 m (6 560 ft)
Humidity	5 … 95 % relative humidity; no condensation

OMICRON Service Centers

For address details of the OMICRON Service Centers in your area, visit our website www.omicronenergy.com.

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