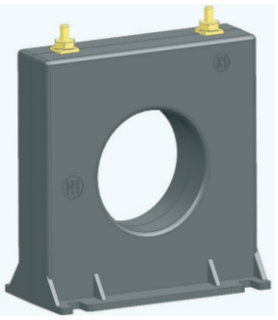
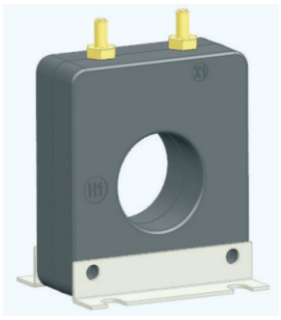
TRANSFORMER SERIES : Omega

Operating Manual

Low Voltage-Current Transformer -

- Omega Series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(refer note)

Indication

Before initial operation we ask you to pay full attention to these assembling instructions in order to guarantee the reliability and to ensure the performance of the device.

Functional description

Current transformers of the model range Omega are inductive single conductor-current transformers operating according to the transformer principle. Due to the applicable measuring principle, current transformers of this type only be installed in alternating current (AC) networks.

Safety instructions

In order to avoid personal and material damage the following assembling steps must by performed only by authorised, qualified and trained personnel.

If the secondary circuit is operated without a burden/load (open) high voltages may appear. These voltage values are dangerous for persons as well as for the functional reliability of the current transformer.
It is forbidden to operate the current transformer without a secondary connected to burden/load or short circuited.

General Technical Parameters

Specifications provided below outline the general technical parameters for the complete CT range.
For details specifics to individual CT types, please refer to the respective product datasheets

Primary current	25A to 6000A
Secondary current	5A
Accuracy class	0.3, 0.6, 1.2 (ANSI Metering Class) 1, 2, 3, 2.4 ,4.8 (Non ANSI)
Rated Burden	B0.1, B0.2, B0.5, B0.9, B1.8 (ANSI) 1VA to 100VA (Non ANSI)
Continuos thermal rating factor	0.6, 0.8, 1, 1.2, 1.33, 1.5, 2
Rated frequency	60Hz
Maximum system voltage	600V
Basic insulation level	10kV
Applied standards	IEEE C57.13
Ambient temperature	-30°C to +55°C(RH upto 95% non-condensing)
Storage temperature	-50°C…+80°C
Secondary lead Connection	16 AWG(stranded) wire with a M4 ring-type lug for models SHT/SFT.
Torque	8-32 UNC hex nut : 13 lb·in [1.5Nm]
Case Material	10% glass filled polycarbonate, flame retardant grades classified UL94V-0
Altitude	up to 2000m

Note : CSA is only applicable to Model 2,Model 5,Model 6, Model 7, Model 8.

Assembly

1. Ensure a safe work environment during assembly, maintenance and inspection operations. Interrupt the current supply of the primary conductor and take precautions against unintentional switching.

(i) For Window type CT :Insert bus bar or primary cable through window & fix it using mounting screws. (for mounting kit part code refer datasheet).

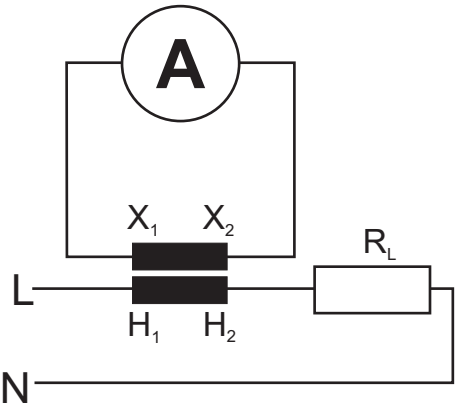
H1-H2 : Direction of input power supply
X1-X2 : Direction of output power

2. Connect the secondary wires of the current transformer to the measuring device (ampere meter, energy meter). Pay attention to the installation guide of the measuring device.

3. Start the current supply again.

4. Check whether the current transformer is assembled correctly and the secondary leads are connected properly.

Wiring diagram



Selection of Copper wire Based on Current rating refer to NEC Table 310.15(B)

Environmental instruction

When the product has reached it´s “end of life”, it must be recycled. Pass it to an electrical waste disposal as per local regulation. Do not dispose as unsorted municipal waste!

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This product was developed and manufactured in accordance with the applicable regulations (IEEE C57.13) and meets the requirements of the low voltage guideline 2006/95/EG

Considerations during UL test :

1) These devices have not been tested for radio influence voltage (RIV), Accuracy and mechanical tests only temperature and dielectric voltage- withstand tests have been conducted.

2) These devices employ class 105(A) Insulation system

3) These devices were tested at room ambient for the heating test then make corrections to 30 ºC ambient. Based on test results, they may be classified as 65ºC rise type at 30ºC ambient.

4) The heating tests were conducted with the secondary winding short-circuited.

5) These transformers were tested at room ambient for the heating test and corrected to the indicated surrounding air temperature rating.

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