

Products manufactured by ETE are produced to the highest standards and each unit is fully tested and inspected prior to despatch. Simple test certificates or certificates of conformity can be issued if required. Where fully documented test and inspection reports are required however, complete routine or routine and type testing can be carried out to IEC 60076-1:2001. Contact our sales team for more information regarding these test procedures and costs.

The tests and inspections are as follows:

IEC 60076-1 Clause 3.11.1 states:

Routine test: A test to which each individual transformer is subjected.

Documented routine tests include:

- Measurement of winding resistances (Clause 11.2.1 General)
- Measurement of voltage ratio and check for phase displacement (Clause 1.3).
- Measurement of short-circuit impedance and load loss (Clause 11.4)
- Measurement of the no load loss and current (Clause 11.5)
- Dielectric routine tests (IEC 60076-3)
- Induced voltage test using 2 x working voltage at 100 Hz (using 100 Hz generator)

Additional tests (if required):

- Sound measurement test using digital sound meter at 1 m

The following inspection references are also included:

- Inspection of overall finish
- Inspection of terminations and connections
- Inspection of fixings and overall measurements to drawings
- Inspection of markings and labelling

IEC 60076-1 Clause 3.11.2 states:

Type test: A test made on a transformer which is representative of other transformers, to demonstrate that these transformers comply with the specified requirements not covered by the routine tests. A transformer is considered to be representative of others if it is built to the same drawings using the same techniques and materials in the same factory.

Documented type tests include:

- All of the documented routine tests listed above
- Temperature-rise type test (IEC 60076-2 - Clause 1.1.3a)

Additional tests (if required):

- Plotted temperature rise graph to peak running temperature
- Dielectric type tests (IEC 60076-3 - Clause 11.1.3b)
- Determination of sound level (IEC 60076-10) for each method of cooling for which a guaranteed sound level is specified (Clause 11.1.3c)

Further additional tests (if applicable):

- Measurement of power taken by the fan and liquid pump motors (Clause 11.1.3d)
- Measurement of no load loss and current at 90% and 110% of rated voltage (Clause 11.1.3e)



Routine tests documentation



Routine and type tests documentation