

**IS 01 Interpretation of subclause 19.8
IEC 61558-1:1997, First edition
Safety of power transformers, power supply units and similar– Part 1: General
requirements and tests**

INTERPRETATION SHEET

Introduction:

WG1 of TC96 has been requested to provide urgently a clarification of the bridge allowed by resistors or capacitors between different conductive parts.

A clarification of subclause 19.8 of IEC 61558-1 Ed.1 has been agreed by WG1 of TC96 as follows:

“19.8 Conductive parts separated by **double or reinforced insulation**, e.g. **live parts** and the **body or primary and secondary circuits**, may be bridged (conductive bridge) by resistors or Y2 capacitors provided that they consist of at least two separate components whose impedance is unlikely to change significantly during the lifetime of the **transformer**.”

If the resistors are used they shall comply with the requirements of test (a) in 14.1 of IEC 60065. If capacitors are used they shall comply with the relevant requirements of IEC 60384-14.

Where two capacitors are used in series, they shall each be rated for the total working voltage across the pair and shall have the same nominal capacitance value.

If any one of such two components is short-circuited or open-circuited, the values specified in Clause 9 shall not be exceeded.

In addition, if the working voltage does not exceed 250 V, conductive parts separated by double or reinforced insulation, e.g. live parts and the body or primary and secondary circuits, may be bridged by a single Y1 capacitor complying with the relevant requirements of IEC 60384-14.

NOTE A Y1 capacitor is considered to have reinforced insulation.

Compliance is checked by inspection and by measurement.”

REMARKS

- This interpretation of subclause 19.8 is not applicable to the transformer for toys covered by IEC 61558-2-7.
- This clarification having been introduced in the draft IEC 61558-1, Second edition, this interpretation sheet will be automatically cancelled at the date of publication of IEC 61558-1 Ed.2.