

CTL DECISION SHEET

Standard(s): IEC 61558-1/2005	Subclause(s): 15.2	No.	Year
		DSH 0709	2008
Category: SAFE		Developed by: ETF5 OSM/LUM	
Subject: Short circuit and overload protection	Key words: - Transformers - Steady state conditions - Short circuit	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

Inherently short-circuit proof transformers shall be tested by short-circuiting the output windings until steady-state conditions are reached.

In IEC 61558-1 “steady-state condition” is not explained. Referring to other standards the meaning of “steady-state conditions” or “thermal stability” is that the change of temperature is less than 1°C per hour. So following questions arise:

- 1) Is it correct to record the temperatures after one hour when temperatures did not change (more than 1°C/h)?
- 2) How shall an inherently short-circuit proof transformer be assessed when the above mentioned requirements are fulfilled, but it is damaged 6h after reaching the steady state condition in a way where safety will be impaired (the transformer bursts).

Decision:

- 1) Yes.
- 2) The transformer should not be accepted.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.