STN

Výkonové transformátory Dopĺňajúce európske požiadavky Časť 1-1: Spoločná časť Všeobecné požiadavky Oprava AC

STN EN 50708-1-1/AC

35 1130

Power transformers - Additional European requirements: Part 1-1: Common part - General requirements

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/21

Obsahuje: EN 50708-1-1:2020/AC:2020-12:2020

EN 50708-1-1:2020/AC:2020 (E)



Corrigendum to EN 50708-1-1:2020

English version

In 5.2, add the following note after the first paragraph:

"NOTE All requirements given in this standard series (EN 50708) are for a rated frequency of 50 Hz, except another frequency is specified in the text or tables of the stated standard series."

In 5.3.4 e), replace "EN 50708-2-1:2020, Table 3 and Table 4;" with "EN 50708-2-1:2020;".

Replace the title of 7.1 with "Tolerance during acceptance tests".

In B.2, replace the third paragraph:

"The capitalization values represent the avoided costs associated with the marginal kW of Iron and Copper losses saved, so that if for branding or other reasons companies wished to reduce transformer losses further in a cost effective and transparent manner, two quotes should be sought, one for Transformer design using capitalized loses and the second for a similar design but with (say) 10 % less losses."

with

"The capitalization values represent the avoided costs associated with the marginal kW of no-load losses and load losses saved, so that if for branding or other reasons companies wished to reduce transformer losses further in a cost effective and transparent manner, two quotes should be sought, one for Transformer design using capitalized loses and the second for a similar design but with (say) 10 % less losses."

In B.3.3, replace the last three paragraphs with the following:

"The B factor (€/kW of Load Loss) represents the value today of the total load losses saved over the lifetime of the transformer. Unlike no load losses, the load losses are highly dependent on how heavily the transformer is loaded and over how long a period, with the load losses increasing dramatically with transformer loading (proportional to the square of the load). So a transformer with 400 identical customers will not have twice the load losses of a transformer with 200 customers, but will actually have four times the losses.

Following the same logic as for no-load losses, a purchaser would be willing to spend anything up to B €/kW on extra costs in improving the transformer, because as long as this extra investment is less than B, there is a positive gain to be made. However there are declining returns with increasing investment so that at some stage the benefits from the extra investment cost more than the losses saved, at which stage no further investment is economic. At this point the value of the load losses saved is balanced by the extra transformer investment cost per kW, and this value is B €/kW.

In practical terms this means that for transformers with heavy loads (e.g. Industrial /commercial loads, urban areas), load losses will be predominant and will give a strong return on investment; whereas on transformers with low loads (rural transformers) a very poor return on load losses would be made, and no-load losses are predominant."
