
**Energijski izkoristek velikih transformatorjev ($U_m > 36$ kV ali $S_r \geq 40$ MVA) -
Dopolnilo A1**

Energy performance of large power transformers ($U_m > 36$ kV or $S_r \geq 40$ MVA)

Energiekennwerte von großen Leistungstransformatoren ($U_m > 36$ kV oder $S_r \geq 40$ MVA)

Performance énergétique des transformateurs de grande puissance ($U_m > 36$ kV ou $S_r \geq 40$ MVA)

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SIST EN 50629:2015/A1:2016

Ta slovenski standard je istoveten z: **EN 50629:2015/A1:2016**

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This amendment A1 modifies the European Standard EN 50629:2015; it was approved by CENELEC on 2016-05-23. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Contents		Page
European foreword		3
1	Modification to Clause 1, Scope.....	4
2	Modifications to Clause 3, Terms and definitions	4
3	Modification to 4.1, General	5
4	Modification to 5.3, Rating plate data	5

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European foreword

This document (EN 50629:2015/A1:2016) has been prepared by CLC/TC 14 "Power transformers".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-05-23
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2019-05-23

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports requirements of Commission Regulation (EU).

For the relationship with Commission Regulation (EU) see informative Annex ZZ, which is an integral part of EN 50629:2015.

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EN 50629:2015/A1:2016

1 Modification to Clause 1, Scope

After the last item of the bulleted list “- large power transformers which are like for like replacements in the same physical location/installation for existing large power transformers, where this replacement cannot be achieved without entailing disproportionate costs associated to their transportation and/or installation.”, add the following new paragraph:

“In case one of the last two exclusions is claimed, this should be documented at the signature of the contract with a declaration made by the customer.”.

2 Modifications to Clause 3, Terms and definitions

After term “3.7 declared value”, add the following new terms:

“3.8 excluded transformers**3.8.1****instrument transformer**

transformer as defined in section 3.1.1 of EN 61869-1:2009, even if it supplies energy for the operation of connected equipment

Note 1 to entry: The difference between the definition in Regulation 548/2014 and the CENELEC one is in the use of the word ‘supply’ rather than ‘transmit an information signal’.

3.8.2**transformer with low-voltage windings specifically designed for use with rectifiers to provide a DC supply**

transformer specifically designed and intended to supply power electronic or rectifier loads specified according to EN 61378-1

Note 1 to entry: This definition covers transformers designed for use with rectifiers to provide a DC supply in certain applications.

Note 2 to entry: The term “Low-voltage winding” refers to the winding having the lowest rated voltage as per EN60076-1, whatever its voltage level.

Note 3 to entry: This definition does not include:

- transformers which are intended to provide AC from DC sources such as transformers for wind turbine and photo voltaic applications;
- transformers designed for DC transmission and distribution applications.

Therefore, they are part of the scope of this standard and shall comply with Commission Regulation (EU) No. 548/2014.

3.8.3**transformers specifically designed for offshore applications and floating offshore applications**

transformer to be installed on fixed or floating offshore platforms, offshore wind turbines or on board of ships and all kind of vessels

3.8.4**transformers specially designed for emergency installations**

transformer designed only to provide cover for a specific time limited situation when the normal power supply is interrupted either due to an unplanned occurrence such as failure or a station refurbishment, but not to permanently upgrade an existing substation

Note 1 to entry: Such transformer could have some specific features that make it suitable for emergency or temporary use as opposed to normal use. Example of some specific features:

- multiple windings making it suitable for use at several locations;
- special low weight or dimensions for easy transport, or special capability to be disassembled into smaller units for transport;
- increased overload capability achieved by the use of special materials;
- permanent mounting on a transporter arrangement;

3.8.5

transformers and auto-transformers specifically designed for railway feeding systems

transformer as defined in EN 50329

3.8.6

earthing or grounding transformers, this is, three-phase transformers intended to provide a neutral point for system grounding purposes

transformer as defined in paragraph 3.1.10 of EN 60076-6:2008.

3.8.7

traction transformer

transformer installed on board of rolling stock inserted in the traction and auxiliary circuits of rolling stock and in the scope of EN 60310

3.8.8

starting transformers, specifically designed for starting three-phase induction motors so as to eliminate supply voltage dips

transformer that is de energized during normal operation, used for the purpose of starting a rotating machine

3.8.9

Medium Voltage (MV) to Medium Voltage (MV) interface transformers up to 5 MVA

transformer used in network voltage conversion program and placed at the junction between two voltage levels of two MV networks and which needs to be able to cope with emergency overloads

Note 1 to entry: Such units may or maybe not part of a packaged compact substation including also MV Reclosers and protection equipment.”.

3 Modification to 4.1, General

After Note 2, add the following new paragraphs:

“If different values of apparent power are assigned under different circumstances, for example, with different methods of cooling (ONAN/ONAF, AN/AF, etc...), all values must be reported on the rating plate and the highest of these values is the rated power. This applies also in case a provision for a future value of apparent power is made (for example future ONAF, future AF, etc...).

Any evaluation of losses shall be done on continuous rated power as stated in EN60076-1. If additional cooling system such as fans or pumps... are used only for temporary overload conditions and not for continuous rating, then such overloading rating cannot be claimed to be as rated power and then not mentioned on the rating plate.”.

4 Modification to 5.3, Rating plate data

After the last bulleted item “- Mass of the active part, if different from the untanking mass.”, add the following new paragraph:

“For transformers with re-connectable windings, the values of PEI , k_{PEI} , P_0 , P_{c0} and P_k shown on the rating plate and in the technical documentation shall refer to the highest rated voltage(s).”.