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Power transformer and reactor fittings -- Part 10: Oil-to-air heat exchangers

I.S. EN 50216-10:2009

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EN 50216-10

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English version

**Power transformer and reactor fittings -
Part 10: Oil-to-air heat exchangers**

Accessoires pour transformateurs
de puissance et bobines d'inductance -
Partie 10: Echangeurs thermiques
huile-air

Zubehör für Transformatoren
und Drosselspulen -
Teil 10: Öl-Luft-Kühler

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CENELEC

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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 14, Power transformers.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50216-10 on 2008-10-21.

This European Standard is to be read in conjunction with EN 50216-1:2002, *Power transformer and reactor fittings - Part 1: General*.

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented
at national level by publication of an identical
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| – latest date by which the national standards conflicting
with the EN have to be withdrawn | (dow) | 2011-11-01 |
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1 Scope

EN 50216-10 describes oil-to-air heat exchangers that means a heat exchanger for the cooling of the transformer oil using a forced oil circuit and a forced air circuit.

The oil-to-air heat exchangers are not included in the scope of the Pressure Equipment Directive 97/23/EC according to Article 1, § 3.12.

This standard establishes essential dimensions and the requirements to ensure interchangeability and adequate mounting of the oil-to-air heat exchangers.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

EN 50216-1:2002	Power transformers and reactor fittings - Part 1: General
EN 60296	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear (IEC 60296)
EN 60721-3-4	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 4: Stationary use at non-weatherprotected locations (IEC 60721-3-4)
EN 754-2	Aluminium and aluminium alloys - Cold drawn rod/bar and tube - Part 2: Mechanical properties
EN 1092-1	Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories , PN designated - Part 1: Steel flanges
EN 1386	Aluminium and aluminium alloys - Tread plate - Specifications
EN 10025:1990 ¹⁾	Hot rolled products of non-alloy structural steels - Technical delivery conditions
EN 10130	Cold rolled low carbon steel flat products for cold forming - Technical delivery conditions
EN 10217-1	Welded steel tubes for pressure purposes - Technical delivery conditions - Part 1: Non-alloy steel tubes with specified room temperature properties
EN 12451	Copper and copper alloys - Seamless, round tubes for heat exchangers
EN ISO 3506-1	Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1: Bolts, screws and studs (ISO 3506-1)
ISO 4406	Hydraulic fluid power - Fluids - Methods for coding the level of contamination by solid particles

3 Definitions

For the purposes of this document, the following terms and definitions apply.

3.1

oil header

oil collecting and guiding compartment with flange connections to connect the heat exchanger with the oil circuit of the transformer

3.2

tube sheets

tubes are connected at both ends with tube sheets. The connection must be oil tight

3.3

heat exchanger

device for exchanging heat from one medium to the other

¹⁾ Replaced by EN 10025 series, Hot rolled products of structural steels.

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