

**Heat exchangers - Forced convection air cooled
refrigerant condensers - Test procedures for
establishing performance**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

Heat exchangers - Forced convection air cooled refrigerant condensers - Test procedures for establishing performance

Echangeurs thermiques - Aérocondenseurs à convection forcée - Procédures d'essai pour la détermination de la performance

Wärmeübertrager - Ventilatorbelüftete Verflüssiger - Prüfverfahren zur Leistungsfeststellung

This European Standard was approved by CEN on 22 May 2014.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 327:2014) has been prepared by Technical Committee CEN/TC 110 "Heat exchangers", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 327:2000 and EN 327:2000/A1:2002.

The main changes with respect to the previous edition are listed below:

- a) Clause 3 "Terms and definitions" is modified;
- b) The revised standard takes into account the application of CO₂.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard is one of a series of European Standards dedicated to heat exchangers.

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1 Scope

This European Standard applies to non-ducted forced convection air cooled refrigerant condensers/gas coolers with dry air side surface within which the refrigerant changes phases or is cooled. Its purpose is to establish uniform methods of performance assessment. It does not deal with evaluation of conformity.

This European Standard does not apply to air cooled condensers/gas coolers, designed primarily for installation within the machinery compartment of packaged products or in factory-assembled condensing/gas cooling units.

This European Standard does not apply to condensers with an integral subcooling part.

This European Standard specifies methods to test and ascertain the following:

- product identification;
- standard capacity;
- nominal air flow rate;
- nominal fan power.

This European Standard does not cover technical safety aspects.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60034-1, *Rotating electrical machines - Part 1: Rating and performance (IEC 60034-1)*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)*

3 Terms and definitions

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

3.1
forced convection air cooled refrigerant condenser
refrigeration system component that condenses refrigerant vapour by rejecting heat to air, which is mechanically circulated over its dry heat transfer surface by integral fans and fan drives

Note 1 to entry: The heat transfer coil includes distributing and collecting headers.

Note 2 to entry: In the following “forced convection air cooled refrigerant condenser” is referred to as “condenser”.

3.2
forced convection air cooled refrigerant gas cooler
refrigeration system component that cools the refrigerant by rejecting heat to air, which is mechanically circulated over its dry heat transfer surface by integral fans and fan drives

Note 1 to entry: In the following “forced convection air cooled refrigerant gas cooler” is referred to as “gas cooler”.