SLOVENSKI STANDARD
oSIST prEN 12900:2012

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Kompresorji za hladilne tekočine - Pogoji določanja nazivne moči, toleranc in predstavitev tehničnih karakteristik proizvajalca

Refrigerant compressors - Rating conditions, tolerances and presentation of manufacturer's performance data

Kältemittel-Verdichter - Nennbedingungen, Toleranzen und Darstellung von Leistungsdaten des Herstellers

Compresseurs pour fluides frigorigènes - Conditions de détermination des caractéristiques, tolérances et présentation des performances par le fabricant

Ta slovenski standard je istoveten z: **prEN 12900**

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23.140	Kompresorji in pnevmatični stroji	Compressors and pneumatic machines
27.200	Hladilna tehnologija	Refrigerating technology

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Will supersede EN 12900:2005

English Version

Refrigerant compressors - Rating conditions, tolerances and presentation of manufacturer's performance data

Compresseurs pour fluides frigorigènes - Conditions de détermination des caractéristiques, tolérances et présentation des performances par le fabricant

Kältemittel-Verdichter - Nennbedingungen, Toleranzen und Darstellung von Leistungsdaten des Herstellers

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 113.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Foreword

This document (prEN 12900:2012) has been prepared by Technical Committee CEN/TC 113 “Heat pumps and air conditioning units”, the secretariat of which is held by AENOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12900:2005.

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 CO_2.

1 Scope

This European Standard specifies the rating conditions, tolerances and the method of presenting manufacturer's data for positive displacement refrigerant compressors. These include single stage compressors and single and two stage compressors using a means of fluid subcooling. This is required so that a comparison of different refrigerant compressors can be made. The data relate to the refrigerating capacity and power absorbed and include correction factors and part-load performance where applicable.

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 378-1:2008, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 1:Basic requirements, definitions, classification and selection criteria*

EN 13771-1, *Compressors and condensing units for refrigeration — Performance testing and test methods — Part 1: Refrigerant compressors*

ISO 817, *Refrigerants — Designation system*

3 Terms and definitions

For the purposes of this document, the terms and definitions of EN 378-1:2008 and the following apply.

3.1
positive displacement compressor
compressor in which compression is obtained by changing the internal volume of the compression chamber

[SOURCE: EN 378-1:2008, 3.4.6]

3.2
refrigerating capacity
product of the low pressure mass flow of refrigerant through the compressor and the difference between the specific enthalpy of the refrigerant at the low pressure compressor inlet and the specific enthalpy of fluid entering the evaporator expansion device.

This latter enthalpy is related to the stated fluid temperature under following pressure conditions:

– for single-stage expansion cycles the compressor discharge pressure,

– for multiple-stage expansion cycles the lowest pressure (dew point temperature) at the corresponding compressor intermediate port.

The refrigerant at the low compressor inlet is superheated above the suction dew point temperature to the stated value.

Note 1 to entry: Condensing temperature is defined as saturated dew point temperature.