TECHNICAL SPECIFICATION

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CEN/TS 17606

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English Version

Installation of refrigeration, air conditioning and heat pump equipment containing flammable refrigerants, complementing existing standards

Installation d'équipements de réfrigération, de climatisation et de pompes à chaleur contenant des réfrigérants inflammables, en complément des normes existantes

Installation von Kälte-, Klima- und Wärmepumpenanlagen, die brennbare Kältemittel enthalten, zur Ergänzung bestehender Normen

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (CEN/TS 17606:2021) has been prepared by Technical Committee CEN/TC 182 “Refrigerating systems, safety and environmental requirements”, the secretariat of which is held by DIN.

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Introduction

The adoption of refrigerants with low Global Warming Potential, in response to concerns about the effect of some fluorocarbons on climate, has raised the profile of fluids which were previously limited in their use due to flammability. As the industry moves towards greater use of low GWP flammable refrigerants, in particular from flammability class A3, it is important to ensure that installation methods also change to support this technology transition.

The purpose of this document is to provide information to ensure acceptable risk levels applying flammable refrigerants.

This document therefore provides technical information to the companies and individuals directly involved in activities at the worksite; the owner of the system and the company and individuals that install equipment.

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1 Scope

This document provides technical information for the installation of refrigeration, air conditioning and heat pump equipment containing flammable refrigerants, in particular from class A3, complementing existing standards. The term “refrigerating system” used in this document includes air conditioners and heat pumps.

Refrigerants from toxicity class B are excluded from this scope.

This document includes risk mitigation measures not yet addressed in existing standards for specific refrigerant classes, or not fully reflecting the state of the art, and establishes complementary technical specifications related to the installation of equipment.

The following aspects are considered:

— explosive atmosphere workplace and equipment;

NOTE Further information can be found in Directive 99/92/EC (ATEX Workplace Directive) and Directive 2014/34/EU (ATEX Equipment Directive).

— design and structural specifications for the installation site;

— marking and labelling of equipment parts and installation site;

— good practice for installing equipment, including tools and personal protection;

— risk mitigation methods and related refrigerant charge limits;

— risk assessments;

— competence of personnel;

— safety testing of systems and equipment.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 378-1:2016+A1:2020, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 1: Basic requirements, definitions, classification and selection criteria*

EN 378-2, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 2: Design, construction, testing, marking and documentation*

EN 378-3, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 3: Installation site and personal protection*

EN ISO 22712:—[1], *Refrigerating systems and heat pumps - Competence of personnel (ISO/DIS 22712)*

ISO 31000 series, *Risk management*

[1] Under preparation. Stage at the time of publication: prEN ISO 22712:2018.

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