

English Version

Operation, servicing, maintenance, repair and  
decommissioning of refrigeration, air conditioning and  
heat pump equipment containing flammable refrigerants,  
complementing existing standards

Exploitation, entretien, maintenance, réparation et  
mise hors service d'équipements de réfrigération, de  
climatisation et de pompes à chaleur contenant des  
réfrigérants inflammables, en complément des normes  
existantes

Betrieb, Wartung, Instandhaltung, Reparatur und  
Außerbetriebnahme von Kälte-, Klima- und  
Wärmepumpenanlagen, die brennbare Kältemittel  
enthalten, zur Ergänzung bestehender Normen

This Technical Specification (CEN/TS) was approved by CEN on 1 February 2021 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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## Contents

Page

|   |    |
|---|----|
| European foreword .....                   | 3  |
| Introduction .....                        | 4  |
| 1 Scope.....                              | 5  |
| 2 Normative references.....               | 5  |
| 3 Terms and definitions .....             | 5  |
| 4 General.....                            | 7  |
| 5 Operation .....                         | 8  |
| 6 Maintenance, servicing, and repair..... | 8  |
| 7 Location of equipment .....             | 9  |
| 8 Marking of the site.....                | 9  |
| 9 Decommissioning and dismantling.....    | 9  |
| 10 Competence.....                        | 9  |
| Bibliography .....                        | 10 |

## European foreword

This document (CEN/TS 17607:2021) has been prepared by Technical Committee CEN/TC 182 “Refrigerating systems, safety and environmental requirements”, the secretariat of which is held by DIN.

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

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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 operation, service and decommissioning practices also change to support this technology transition.

The need for technical specifications for all stakeholders in operation and service is particularly important.

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

This document therefore provides technical specifications to the companies and individuals directly involved in activities at the worksite; the owner, his operational staff that provide routine maintenance, subcontractors that undertake specialist service work of various types and decommissioning contractors.

## 1 Scope

This document provides technical specifications for the operation, servicing, maintenance, repair and decommissioning of refrigeration, air conditioning and heat pump equipment containing flammable refrigerants, in particular from class A3, complementing existing standards.

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 for the operation, servicing, maintenance, repair and decommissioning.

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).

- good practice for the operation, servicing, maintenance, repair and decommissioning, including tools and personal protection;
- risk mitigation methods;
- risk assessments;
- competence of personnel;
- health and safety of personnel;
- location of the 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 378-4:2016+A1:2019, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 4: Operation, maintenance, repair and recovery*

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

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 378-1:2016+A1:2020, EN ISO 22712:—<sup>1</sup> and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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<sup>1</sup> Under preparation: Stage at the time of publication: prEN ISO 22712:2018.