Majapidamis- ja muud taolised elektriseadmed. Erinõuded võrgutoitega purustamis- ja hakkimismasinatele

Safety of household and similar appliances - Particular requirements for mains operated shredders and chippers

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA	NATIONAL FOREWORD
See Eesti standard EVS-EN 50434:2014 sisaldab Euroopa standardi EN 50434:2014 ingliskeelset teksti.	This Estonian standard EVS-EN 50434:2014 consists of the English text of the European standard EN 50434:2014.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.06.2014.	Date of Availability of the European standard is 06.06.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Safety of household and similar appliances - Particular requirements for mains operated shredders and chippers

Sécurité des appareils électrodomestiques et analogues - Règles particulières pour les broyeurs et déchiqueteurs fonctionnant sur le réseau

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Besondere Anforderungen für netzbetriebene Schredder, Häcksler und Zerkleinerer

This European Standard was approved by CENELEC on 2014-03-31. CENELEC 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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Foreword

This document (EN 50434:2014) has been prepared by WG 5, "Gardening appliances", of the Technical Committee CENELEC TC 116, "Safety of motor-operated electric tools".

The following dates are fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-03-31
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2017-03-31

EN 50434:2014 includes the following significant technical changes:

– alignment to the European Machinery Directive 2006/42/EC;

– alignment to EN 60335-1:2012.

This European Standard is to be used in conjunction with EN 60335-1:2012 "*Household and similar electrical appliances – Safety – Part 1: General requirements*".

When Part 1 is mentioned in this standard, it refers to EN 60335-1:2012.

This European Standard supplements or modifies the corresponding clauses in Part 1, so as to convert that publication into the European Standard "*Safety requirements for **shredders/chippers***".

Where a particular subclause of Part 1 is not mentioned in this standard, that subclause applies as far as is relevant. Where this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

Compliance with the relevant clauses of Part 1 together with this European Standard provides one means of conforming to the specified essential health and safety requirements of the Directive.

This European Standard follows the overall requirements of EN ISO 12100:2010.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For the relationship with EU Directive 2006/42/EC, see informative Annex ZZ, which is an integral part of this document.

Warning: Other requirements arising from other EU Directives can be applicable to the products falling within the scope of this European Standard.

The following numbering system is used:

– subclauses that are numbered starting from 101 are additional to those in Part 1;

– additional annexes are lettered AA, BB, etc..

NOTE In this European Standard the following print types are used:
- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

Introduction

This document is a type C standard as stated in EN ISO 12100:2010.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered is as indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the other standards, for machines which have been built and designed to the provisions of this type C standard.

1 Scope

Replacement:

This European Standard specifies safety requirements and their verification for the design and construction of hand fed, **shredders/chippers** with integral electric motor, not exceeding 250 V single phase, with or without vacuum assisted collection which are designed to reduce organic material to smaller pieces and are used in a stationary position by an operator standing on the ground. This standard applies to **shredders/chippers** with **feed intake openings** or segments, in this standard referred to as **feed safety openings** that in total will fit into a square of 250 mm x 250 mm.

NOTE For the requirements for the measurement of the square of 250 mm x 250 mm are given in clause 20.101.1 of this standard.

In this European Standard **shredders** and **chippers** are referred to collectively as machine(s).

This European Standard does not cover requirements for

– machines powered by combustion engines;

NOTE 1 Combustion engine driven machines are covered by EN 13683.

– machines driven by an external power source or by battery power;

– machines with powered discharge intended to broadcast material or load vehicles;

– machines with mechanically powered feed intake or attachments;

– wood chippers for agricultural, lawn and park and forestry use;

NOTE 2 Wood chippers are covered by EN 13525.

– machines powered from a 3 phase supply.

This European Standard deals with all significant hazards presented by **shredders/chippers** when they are used as intended and under conditions of misuse which are reasonably foreseeable.

EMC and environmental aspects, except noise, have not been considered in this European Standard.

This European Standard is not applicable to machines which are manufactured before the date of publication of this document by CENELEC.

2 Normative references

This clause of Part 1 is applicable except as follows:

Addition:

EN ISO 354:2003, *Acoustics — Measurement of sound absorption in a reverberation room (ISO 354:2003)*

EN ISO 3744:2010, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11201:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13849-1:2008, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

3 Terms and definitions

This clause of Part 1 is applicable except as follows:

3.1.9 *Replacement:*

3.1.9
normal operation
any use of the machine which is specified by the manufacturer, and which is consistent with such activities as reducing organic material, starting, and stopping

Addition:

3.101
discharge chute
extension of the opening through which the shredded or chipped material is discharged

3.102
discharge zone
any space wherein material is intended to be ejected from the machine

3.103
feed safety opening
opening through which material is passed located at the relevant safety distance from the **shredding means**. This may be the same as the **feed intake opening** in Clause 3.104 or at some point between the **feed intake opening** and the **shredding means**

3.104
feed intake opening
opening through which material is inserted to be fed to the cutting mechanism. A **feed intake opening** can become **feed safety opening**(s) if the relevant safety distance from the **shredding means** is met

3.105
normal use
normal operation, plus routine maintenance, servicing, cleaning, transporting, attaching or removing accessories, and making adjustments as determined by the manufacturer's instructions

3.106
material discharge deflector
fixed or movable component designed to direct the flow of processed material discharging from the machine