MAJAPIDAMIS- JA MUUDE TAOLISTE ELEKTRISEADMETE OHUTUS. OSA 2-107: ERINÕUDED AKUTOITEGA ELEKTRILISTELE ROBOTMURUNIIDUKITELE

Safety of household and similar appliances - Part 2-107: Particular requirements for robotic battery powered electrical lawnmowers

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 50636-2-107:2015 sisaldab Euroopa standardi EN 50636-2-107:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 50636-2-107:2015 consists of the English text of the European standard EN 50636-2-107:2015.
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 23.01.2015.	Date of Availability of the European standard is 23.01.2015.
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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Safety of household and similar appliances - Part 2-107: Particular requirements for robotic battery powered electrical lawnmowers (IEC 60335-2-107:2012 , modified)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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Foreword

This document (EN 50636-2-107:2015*)* has been prepared by CLC/TC 116, "Safety of hand-held motor-operated electric tools".

The following dates are fixed:

- latest date by which the standard has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-12-01
- latest date by which the national standards conflicting with the standard have to be withdrawn (dow) 2017-12-01

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

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 Directives.

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

The text of IEC 60335-2-107:2012 has been revised by CLC/TC 116/WG 5, "Garden appliances", to bring this European Standard in line with the European Machinery Directive 2006/42/EC.

This document was submitted to the UAP under the reference FprEN 60335-2-107:2013. CLC/TC 116 confirmed that EN 60335-1:2012 is Part 1 of this document.

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

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 "*Particular requirements for robotic battery powered electrical lawnmowers*".

Where a particular subclause of Part 1 is not mentioned in this European 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 concerned.

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

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

This clause of Part 1 is replaced by the following:

This European Standard specifies safety requirements and their verification for the design and construction of **robotic** battery powered electrical **rotary lawnmowers** and their **peripherals** with the **rated voltage** of the battery being not more than 75 V d.c. charged by mains electrical and/or alternative energies, e.g. solar power.

This European Standard does not apply to non-robotic machines such as **lawn trimmers**, **lawn edge trimmers**, **lawn edgers**, **ride-on lawnmowers** or **pedestrian controlled lawnmowers**.

This European Standard is not applicable to EMC and environmental hazards (except noise).

This European Standard does not apply to internal combustion engine(s), hybrid and fuel cell powered machines and associated charging systems.

This European Standard deals with all the significant hazards presented by battery powered **robotic lawnmowers** and their **peripherals** when they are used as intended and under conditions of misuse which are reasonably foreseeable.

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

NOTE This European Standard does not apply to battery chargers (EN 60335-2-29:2004).

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

EN 60320-1:2001+ EN 60320-1:2001/A1:2007, *Appliance couplers for household and similar general purposes – Part 1: General requirements (IEC 60320-1:2001 + A1:2007)*

EN 60320-2-1:2000, *Appliance couplers for household and similar general purposes – Part 2-1: Sewing machine couplers (IEC 60320-2-1:2000)*

EN 60320-2-2:1998, *Appliance couplers for household and similar general purposes – Part 2-2: Interconnection couplers for household and similar equipment (IEC 60320-2-2:1998)*

EN 60320-2-4:2006 + EN 60320-2-4:2006/A1:2009, *Appliance couplers for household and similar general purposes – Part 2 -4: Appliance couplers dependent on appliance weight for engagement (IEC 60320-2-4:2005 + A1:2009)*

EN 60335-1:2012, *Household and similar electrical appliances – Safety – Part 1: General requirements* (IEC 60335-1:2010, mod.)

EN 60335-2-29:2004, *Household and similar electrical appliances – Safety – Part 2-29: Particular requirements for battery chargers (IEC 60335-2-29:2002)*

EN 61032:1998, *Protection of persons and equipment by enclosures – Probes for verification* (IEC 61032:1997)

EN 62133:2003, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications (IEC 62133:2002)*

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 enrgy 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 7010:2012, *Graphical symbols – Safety colours and safety signs – Registered safety signs (ISO 7010:2011)*

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 11203:2009, *Acoustics – Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level (ISO 11203:1995)*

EN ISO 11688-1:2009, *Acoustics – Recommended practice for the design of low-noise machinery and equipment – Part 1: Planning (ISO/TR 11688-1:1995)*

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

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

ISO 683-4:2014, *Heat-treatable steels, alloy steels and free-cutting steels – Part 4: Free-cutting steels*

ISO 3767-1:1998+A1:2008+A2:2012, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Part 1: Common symbols*

ISO 3767-3:1995, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays – Part 3: Symbols for powered lawn and garden equipment*

ISO 7000:2014, *Graphical symbols for use on equipment – Index and synopsis*

ISO 11684:1995, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Safety signs and hazard pictorials – General principles*