

**KÄESHOITAVAD ELEKTRIMOOTORIGA TÖÖRIISTAD,
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KÄESHOITAVATELE TRELLIDELE JA LÖÖKTRELLIDELE**

**Electric motor-operated hand-held tools, transportable
tools and lawn and garden machinery - Safety -
Part 2-1: Particular requirements for hand-held drills
and impact drills (IEC 62841-2-1:2017, modified +
IEC 62841-2-1:2017/AMD1:2021)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 62841-2-1:2018+A11+A1+A12:2022 sisaldab Euroopa standardi EN 62841-2-1:2018 ja selle muudatuste A11:2019, A1:2022 ja A12:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 62841-2-1:2018+A11+A1+A12:2022 consists of the English text of the European standard EN 62841-2-1:2018 and its amendments A11:2019, A1:2022 and A12:2022.
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 and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 19.01.2018, muudatused A11 09.08.2019, A1 29.07.2022 ja A12 29.07.2022.	Date of Availability of the European standard is 19.01.2018, for A11 09.08.2019, A1 29.07.2022 and A12 29.07.2022.
Muudatusega A11 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A11 A11 .	The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags A11 A11 .
Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A1 A1 .	The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags A1 A1 .
Muudatusega A12 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A12 A12 .	The start and finish of text introduced or altered by amendment A12 is indicated in the text by tags A12 A12 .
Selles standardis on rahvusvahelise standardi ühismuudatused tähistatud püstkriipsuga teksti vasakul veerisel.	In this document, the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.
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ICS 25.140.20

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English Version

**Electric motor-operated hand-held tools, transportable tools and
lawn and garden machinery - Safety - Part 2-1: Particular
requirements for hand-held drills and impact drills (IEC 62841-2-
1:2017 , modified + IEC 62841-2-1:2017/AMD1:2021)**

Outils électroportatifs à moteur, outils portables et machines
pour jardins et pelouses - Sécurité - Partie 2-1: Exigences
particulières pour les perceuses portatives et les perceuses
à percussion (IEC 62841-2-1:2017 , modifiée + IEC 62841-
2-1:2017/AMD1:2021)

Elektrische Motorbetriebene handgeführte Werkzeuge,
transportable Werkzeuge und Rasen- und
Gartenmaschinen - Sicherheit - Teil 2-1: Besondere
Anforderungen für handgeführte Bohrmaschinen und
Schlagbohrmaschinen (IEC 62841-2-1:2017 , modifiziert +
IEC 62841-2-1:2017/AMD1:2021)

This European Standard was approved by CENELEC on 2017-05-15. Amendment A11 was approved by CENELEC on 2019-05-13. Amendment A1 was approved by CENELEC on 2021-12-09. Amendment A12 was approved by CENELEC on 2022-06-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard and its amendments the status of a national standard without any alteration.

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This European Standard and its Amendments A11, A1 and A12 exist 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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European foreword

The text of document 116/321/FDIS, future edition 1 of IEC 62841-2-1, prepared by IEC/TC 116 "Safety of motor-operated electric tools" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62841-2-1:2018.

A draft amendment, which covers common modifications to IEC 62841-2-1 (116/321/FDIS), was prepared by CLC/TC 116 "Safety of motor-operated electric tools" and approved by CENELEC.

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2018-07-19
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2022-01-19
with this document have to be withdrawn

This document supersedes EN 60745-2-1:2010.

This European Standard is divided into four parts:

- Part 1: General requirements which are common to most hand-held electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;
- Part 2, 3 or 4: Requirements for particular types of tools which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This Part 2-1 is to be used in conjunction with EN 62841-1:2015.

This Part 2-1 supplements or modifies the corresponding clauses in EN 62841-1:2015, so as to convert it into the European Standard: Particular requirements for hand-held drills and impact drills.

Where a particular subclause of Part 1 is not mentioned in this Part 2-1, that subclause applies as far as relevant. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

The following print types are used:

- requirements; in roman type
- *test specifications: in italic type;*
- notes: in smaller roman type.

The terms defined in Clause 3 are printed in **bold typeface**.

Subclauses, notes, tables and figures which are additional to those in Part 1 are numbered starting from 101.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62841-2-1:2017 are prefixed "Z".

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

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 Directive(s).

For the relationship with EU Directive(s), see informative Annex ZZ, which is an integral part of this document.

Compliance with the clauses of Part 1 together with this Part 2-1 provides one means of conforming with the essential health and safety requirements of the Directive concerned.

Warning: Other requirements and other EU Directives can be applicable to the products falling within the scope of this standard.

Endorsement notice

The text of the International Standard IEC 62841-2-1:2017 was approved by CENELEC as a European Standard with agreed common modifications.

A11 Amendment A11 European foreword

This document (EN 62841-2-1:2018/A11:2019) has been prepared by CLC/TC 116 “Safety of motor-operated electric tools”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-05-13
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2023-05-13

This amendment was developed to correct the operating conditions during the noise test for hand-held diamond core drills, since the noise at no-load does not properly represent the noise emission of diamond core drills. Moreover, a detailed Annex ZZ has been provided.

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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(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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. **A11**

A1 Amendment A1 European foreword

The text of document 116/519/FDIS, future IEC 62841-2-1/AMD1, prepared by IEC/TC 116 "Safety of motor-operated electric tools" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62841-2-1:2018/A1:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-06-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-06-27

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For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZZ, which is an integral part of EN 62841-2-1:2018/A12:2022.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62841-2-1:2017/AMD1:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- | | |
|---------------|-------------------------------------|
| IEC 62841-2-2 | NOTE Harmonized as EN 62841-2-2 |
| IEC 62841-2-6 | NOTE Harmonized as EN IEC 62841-2-6 |

A12 Amendment A12 European foreword

This document (EN 62841-2-1:2018/A12:2022) has been prepared by CLC/TC 116 "Safety and environmental aspects of motor-operated electric tools".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-06-27
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-06-27

This document amends EN 62841-2-1:2018/A1:2022.

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For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZZ, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website. **A12**

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery –

Part 2-1: Particular requirements for hand-held drills and impact drills

Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses –

Partie 2-1: Exigences particulières pour les perceuses portatives et les perceuses à percussion



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INTERNATIONAL STANDARD

NORME INTERNATIONALE



Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery –

Part 2-1: Particular requirements for hand-held drills and impact drills

Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses –

Partie 2-1: Exigences particulières pour les perceuses portatives et les perceuses à percussion

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CONTENTS

FOREWORD.....	4
▣ _{A1} Amendment A1 FOREWORD ▣ _{A1}	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 General requirements	8
5 General conditions for the tests.....	8
6 Radiation, toxicity and similar hazards	8
7 Classification.....	8
8 Marking and instructions	8
9 Protection against access to live parts	9
10 Starting	9
11 Input and current	9
12 Heating	9
13 Resistance to heat and fire	10
14 Moisture resistance	10
15 Resistance to rusting	10
16 Overload protection of transformers and associated circuits.....	10
17 Endurance.....	10
18 Abnormal operation	11
19 Mechanical hazards.....	12
20 Mechanical strength.....	15
21 Construction.....	15
22 Internal wiring.....	15
23 Components	15
24 Supply connection and external flexible cords	15
25 Terminals for external conductors	16
26 Provision for earthing.....	16
27 Screws and connections	16
28 Creepage distances, clearances and distances through insulation	16
Annexes	27
Annex I (normative) Measurement of noise and vibration emissions	27
Annex K (normative) Battery tools and battery packs	34
Annex L (normative) Battery tools and battery packs provided with mains connection or non-isolated sources.....	39
Annex ZA (normative) Normative references to international publications with their corresponding European publications	41
▣ _{A12} Annex ZZ (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC [2006 OJ L157] aimed to be covered ▣ _{A12}	42
Bibliography	45

Figure 101 – Example of a testing apparatus	18
Figure 102 – Locating point “S” on different power switch and handle designs	19
Figure 103 – Locating point “F” on different flange designs	20
Figure 104 – Reaction torque measurement of single handle tools (1)	21
Figure 105 – Reaction torque measurement of single handle tools (2) ^{A1}	22
Figure 106 – Reaction torque measurement of multi handle tools (1)	23
Figure 107 – Reaction torque measurement of multi handle tools (2)	24
Figure 108 – Example torque of a tool with a stable signal region	25
Figure 109 – Example torque of a tool without a stable signal region	25
Figure 110 – Example torque of a tool with an overload clutch	26
Table 4 – Required performance levels	11
Table I.101 – Concrete formulation for impact drills (per cubic metre)	28
Table I.102 – Noise test conditions for impact drills	28
Table I.103 – Noise test conditions for diamond core drills	29
Table I.104 – Vibration test conditions for drills	30
Table I.105 – Drill bit diameter and feed force for drills	30
Table I.106 – Vibration test conditions for impact drills	31
Table I.107 – Vibration test conditions for diamond core drills	31
Table I.108 – Concrete specifications	32
Table I.109 – Detailed example of a concrete formulation that fulfils the requirements of Table I.108	32
Table 4 – Required performance levels	34
Table ZZ.1 — Correspondence between this European Standard and Annex I of Directive 2006/42/EC	42

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 2-1: Particular requirements for hand-held drills and impact drills

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62841-2-1 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
116/321/FDIS	116/330/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 2-1 is to be used in conjunction with the first edition of IEC 62841-1 (2014).

This Part 2-1 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for hand-held drills and impact drills.

Where a particular subclause of Part 1 is not mentioned in this Part 2-1, that subclause applies as far as relevant. Where this standard states “addition”, “modification” or “replacement”, the relevant text in Part 1 is to be adapted accordingly.

The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

The terms defined in Clause 3 are printed in **bold typeface**.

Subclauses, notes and figures which are additional to those in Part 1 are numbered starting from 101.

A list of all parts of the IEC 62841 series, under the general title: *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
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- amended.

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It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 36 months from the date of publication.

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A1 Amendment A1 FOREWORD

Amendment 1 to IEC 62841-2-1:2017 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

The text of this Amendment is based on the following documents:

Draft	Report on voting
116/519/FDIS	116/525/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications/.

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ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 2-1: Particular requirements for hand-held drills and impact drills

Scope

Ⓐ₁ This clause of Part 1 is applicable except as follows:

Addition:

This part of IEC 62841 applies to hand-held **drills** and **impact drills**, including **diamond core drills**. This document also applies to **drills** that can be used for driving screws by attaching screwdriver bits.

This document does not apply to rotary hammers, screwdrivers, impact wrenches and ratchet drivers even if they can be used as a **drill**.

NOTE 101 Rotary hammers are covered by IEC 62841-2-6.

NOTE 102 Screwdrivers, impact wrenches and ratchet drivers are covered by IEC 62841-2-2. Ⓐ₁

Ⓐ₁₂ This document covers all significant hazards, hazardous situations or hazardous events relevant for tools covered by this document.

NOTE Z101 Essential requirements not mentioned in Table ZZ.1 are deemed to be not applicable, because the corresponding hazards are either not relevant for tools covered by this document or do not require specific action by the designer. Ⓐ₁₂

Normative references

This clause of Part 1 is applicable, except as follows:

Addition:

ISO 185:2005, *Grey cast irons – Classification*

ISO 630-2:2011, *Structural steels – Part 2: Technical delivery conditions for structural steels for general purposes*

Terms and definitions

This clause of Part 1 is applicable, except as follows:

Additional definitions:

3.101 drill

tool equipped with either a typical three jaw chuck or a machine taper, specifically designed to bore holes in various materials such as metal, plastics, wood, etc.

Note 1 to entry: Besides drill bits, it is possible that other **accessories** such as bits for deburring and screwdriving are used with **drills**.