



BSI Standards Publication

## **Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety**

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Part 2-21: Particular requirements for hand-held drain cleaners

## National foreword

This British Standard is the UK implementation of EN 62841-2-21:2019. It is derived from IEC 62841-2-21:2017. It supersedes BS EN 60745-2-21:2009+A1:2010, which will be withdrawn on 31 May 2023.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags **[C]** **[C]**.

The UK participation in its preparation was entrusted to Technical Committee CPL/116, Safety of motor-operated electric tools.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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### Amendments/corrigenda issued since publication

Date	Text affected
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EUROPEAN STANDARD

**EN 62841-2-21**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 25.140.20

Supersedes EN 60745-2-21:2009

English Version

**Electric motor-operated hand-held tools, transportable tools and  
lawn and garden machinery - Safety - Part 2-21: Particular  
requirements for hand-held drain cleaners  
(IEC 62841-2-21:2017)**

Outils électroportatifs à moteur, outils portables et machines  
pour jardins et pelouses - Sécurité - Partie 2-21: Exigences  
particulières pour les furets portatifs  
(IEC 62841-2-21:2017)

Elektrische motorbetriebene handgeführte Werkzeuge,  
transportable Werkzeuge und Rasen- und  
Gartenmaschinen - Sicherheit - Teil 2-21: Besondere  
Anforderungen für handgeführte Abflussreiniger  
(IEC 62841-2-21:2017)

This European Standard was approved by CENELEC on 2017-06-27. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## European foreword

The text of document 116/316/FDIS, future edition 1 of IEC 62841-2-21, 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 62841-2-21:2019.

A draft amendment, which covers common modifications to IEC 62841-2-21 (116/316/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 at national level by publication of an identical national standard or by endorsement (dop) 2019-11-30
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2023-05-31

EN 62841-2-21:2019 supersedes EN 60745-2-21:2009 + A1:2010.

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 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 2-21 is to be used in conjunction with EN 62841-1:2015.

This Part 2-21 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 drain cleaners.

Where a particular subclause of Part 1 is not mentioned in this Part 2-21, 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 62841-2-21:2017 are prefixed "Z".

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

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, see informative Annex ZZ, which is an integral part of this document.

Compliance with the clauses of Part 1 together with this Part 2-21 provides one means of conforming with the essential health and safety requirements of the Directive concerned.

### **Endorsement notice**

The text of the International Standard IEC 62841-2-21:2017 was approved by CENELEC as a European Standard with agreed common modifications.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62841-3-14 NOTE Harmonized as EN 62841-3-14

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –****Part 2-21: Particular requirements for hand-held drain cleaners**

## 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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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62841-2-21 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

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

FDIS	Report on voting
116/316/FDIS	116/326/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 2-21 is to be used in conjunction with the first edition of IEC 62841-1 (2014).

This Part 2-21 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC standard: Particular requirements for hand-held drain cleaners.

Where a particular subclause of Part 1 is not mentioned in this Part 2-21, 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;
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- 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,
- replaced by a revised edition, or
- amended.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

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.



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

## Part 2-21: Particular requirements for hand-held drain cleaners

### 1 Scope

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

*Addition:*

This part of IEC 62841 applies to hand-held **drain cleaners**.

NOTE 101 **Drain cleaners** are also known as pipe cleaners.

This standard does not apply to transportable **drain cleaners**.

NOTE 102 Transportable **drain cleaners** will be covered by a future part of IEC 62841-3.

This standard does not apply to machines that use a solid rod to clean drains.

### 2 Normative references

This clause of Part 1 is applicable.

### 3 Terms and definitions

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

*Additional definitions:*

#### 3.101

##### **cutter**

accessory that is attached to the end of the **drain cleaner cable** or is a specially formed section of the **drain cleaner cable**

Note 1 to entry: See Figure 101.

#### 3.102

##### **drain cleaner**

tool designed to clean out drains and pipes with a rotating **drain cleaner cable** that is either fed manually or with an automatic feed mechanism

Note 1 to entry: See Figure 101.

#### 3.103

##### **drain cleaner cable**

flexible **accessory** of a **drain cleaner** that is inserted into the pipe or drain

Note 1 to entry: See Figure 101.

#### 3.104

##### **drum**

cylindrical container that rotates and houses the **drain cleaner cable**