

INTERNATIONAL STANDARD

**Electric motor-operated tools – Dust measurement procedure –
Part 3-1: Particular requirements for transportable table saws**

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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRIC MOTOR-OPERATED TOOLS –
DUST MEASUREMENT PROCEDURE –****Part 3-1: Particular requirements for transportable table saws**

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IEC 63241-3-1 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools. It is an International Standard.

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

Draft	Report on voting
116/793/CDV	116/850A/RVC

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 International Standard 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/publications.

This document is to be used in conjunction with the first edition of IEC 63241-1:2023.

This document supplements or modifies the corresponding clauses in IEC 63241-1, so as to convert it into the IEC Standard: Particular requirements for transportable table saws.

Where a particular subclause of IEC 63241-1 is not mentioned in this document, that subclause applies as far as reasonable. Where this document states "addition", "modification" or "replacement", the relevant text in IEC 63241-1 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, tables and figures which are additional to those in IEC 63241-1 are numbered starting from 101.

A list of all parts of the IEC 63241 series, under the general title: *Electric motor-operated tools – Dust measurement procedure*, 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations can 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 TOOLS – DUST MEASUREMENT PROCEDURE –

Part 3-1: Particular requirements for transportable table saws

1 Scope

IEC 63241-1:2023, Clause 1 is applicable, except as follows:

Addition:

This part of IEC 63241 applies to transportable **table saws** intended to cut wood or wood-based materials.

2 Normative references

IEC 63241-1:2023, Clause 2 is applicable, except as follows:

Addition:

IEC 63241-1:2023, *Electric motor-operated tools – Dust measurement procedure – Part 1: General requirements*

3 Terms and definitions

IEC 63241-1:2023, Clause 3 is applicable, except as follows:

Addition:

3.101

table saw

tool with a rotating toothed saw blade that projects through a slot in a table which supports and positions the workpiece, where the workpiece is fed towards the saw blade and the motor and drive assembly for the saw blade are located below the table top

4 Test procedure

IEC 63241-1:2023, Clause 4 is applicable, except as follows:

4.3 Operating conditions

Addition:

Table saws are tested under load observing the conditions shown in Table 101.

During the test, **table saws** supplied with a working stand are placed on this working stand.

Other **table saws** are placed on a test bench with a working height matching the requirement for the vertical distance between the upper surface of the workpiece and the intake openings of the **dust samplers** as specified in IEC 63241-1:2023, 4.2.

Table 101 – Operating conditions for table saws

Material and set-up	Particleboard with the following specifications: • Density: 610 kg/m³; • Bending strength (MOR): 11,0 N/mm²; • Modules of elasticity (MOE): 1 600 N/mm²; • Internal bond strength: 0,35 N/mm² with ±10 % tolerance and dimensions of (19 ± 1) mm thick, (800 ± 2) mm length, any width. NOTE 1 Particleboards according to EN 312 P2, ISO 16893 P-FN REG or ANSI A208.1 Grade M-S fulfil these requirements. NOTE 2 Particleboard is also known as chipboard.
Orientation and operation	Sawing of approximately 10 mm wide strips by means of a rip fence, over the length of 800 mm.
Tool bit/settings	New saw blade as specified by the manufacturer for sawing particleboard at the beginning of each of the three tests. Speed setting devices, if any, shall be adjusted to the setting specified for sawing particleboard. The tool shall be set to a cutting depth of 22 mm ± 1 mm, or as close as possible to this value.
Feed force	The feed force applied to the workpiece shall be sufficient to ensure stable operation with good performance. Excessive force or speed to cut through the workpiece shall be avoided.
Test	During the working time of one test cycle, the following number of cuts as specified above are performed equally distributed over the working time: • 20 cuts for table saws with a rated input up to and including 2,5 kW; • 30 cuts for table saws with a rated input above 2,5 kW. If the above cannot be achieved within 10 min, the time is extended to allow the required number of cuts.

5 Instrumentation

IEC 63241-1:2023, Clause 5 is applicable.

6 Information to be reported

IEC 63241-1:2023, Clause 6 is applicable, except as follows:

Replacement of item o):

- o) information about extension of the cycle time in case the required number of strips could not be achieved within 10 min.

Bibliography

ANSI A208.1-2022, *Particleboard*

EN 312:2010, *Particleboards – Specifications*

ISO 16893:2016, *Wood-based panels – Particleboard*

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