

# FINAL VERSION

# VERSION FINALE

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**Vacuum cleaners and dust extractors providing equipment protection level Dc for the collection of combustible dusts – Particular requirements**

**Aspirateurs et extracteurs de poussières procurant un niveau de protection du matériel Dc, pour la collecte des poussières combustibles – Exigences particulières**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### VACUUM CLEANERS AND DUST EXTRACTORS PROVIDING EQUIPMENT PROTECTION LEVEL Dc FOR THE COLLECTION OF COMBUSTIBLE DUSTS – PARTICULAR REQUIREMENTS

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**This Consolidated version of IEC 62784 bears the edition number 1.1. It consists of the first edition (2017-05) [documents 61J/660/FDIS and 61J/667/RVD] and its amendment 1 (2019-01) [documents 61J/696/CDV and 61J/703/RVC]. The technical content is identical to the base edition and its amendment.**

**This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.**

International standard IEC 62784 has been prepared by subcommittee 61J: Electrical motor-operated cleaning appliances for commercial use, of IEC technical committee 61: Safety of household and similar electrical appliances.

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

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This document recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice and takes into account the way in which electromagnetic phenomena can affect the safe operation of appliances.

This document takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

IEC 62784 contains the result of the work of IEC SC61J MT 62784. MT 62784 prepares, or ensures the coordination of (within SC61J) international standards and specifications for vacuum cleaners and dust extractors in collaboration with TC31, intended for the collection of dusts which present an explosion risk.

# VACUUM CLEANERS AND DUST EXTRACTORS PROVIDING EQUIPMENT PROTECTION LEVEL Dc FOR THE COLLECTION OF COMBUSTIBLE DUSTS – PARTICULAR REQUIREMENTS

## 1 Scope

This International Standard covers electrical mobile motor-operated vacuum cleaners Equipment Protection Level (EPL) Dc.

This includes dust extractors, for wet suction or dry suction, intended for commercial indoor use with or without attachments, to collect combustible dust in an explosive dust atmosphere.

This document supplements and modifies the requirements of IEC 60079-0. Whenever a requirement of this standard is in conflict with a requirement of IEC 60079-0 the requirement of this standard will take precedence.

The following power systems are covered:

- mains powered motors up to a rated voltage of 250 V for single-phase appliances and 480 V for other appliances.

This document does not cover specific hazards associated with extreme ambient temperatures (less than  $-20\text{ °C}$  or higher than  $40\text{ °C}$ ) unless otherwise marked by the manufacturer as given in IEC 60079-0. The temperatures shall not exceed the temperature range of  $-20\text{ °C}$  to  $+60\text{ °C}$ .

This document does not cover motorized cleaning heads for which additional requirements are under consideration.

This document does not apply to

- back-pack vacuum cleaners;
- vacuum cleaners with a traction drive;
- vacuum cleaners and water-suction cleaning appliances for household use (IEC 60335-2-2);
- floor treatment machines for commercial use (IEC 60335-2-67, IEC 60335-2-72);
- spray extraction machines for commercial use (IEC 60335-2-68);
- hand-held mains-operated electrical garden blowers, vacuums and blower vacuums (IEC 60335-2-100);
- hand-held and transportable motor-operated electric tools (IEC 62841 series);
- appliances for medical purposes (IEC 60601-1);
- machines designed for use in corrosive environments;
- machines designed for picking up flammable liquids;
- machines designed for use in explosive environments due to the presence of explosive substances or pyrotechnical products, or unstable chemical substances.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition