

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Surface cleaning appliances – Floor treatment machines with or without traction drive, for commercial use – Methods of measuring the performance

Appareils de nettoyage de surface – Machines de traitements des sols avec ou sans commande de dispositif de déplacement, à usage commercial – Méthodes de mesure des performances



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2014 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

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

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing more than 30 000 terms and definitions in English and French, with equivalent terms in 14 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

More than 55 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Catalogue IEC - webstore.iec.ch/catalogue

Application autonome pour consulter tous les renseignements bibliographiques sur les Normes internationales, Spécifications techniques, Rapports techniques et autres documents de l'IEC. Disponible pour PC, Mac OS, tablettes Android et iPad.

Recherche de publications IEC - www.iec.ch/searchpub

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et aussi une fois par mois par email.

Electropedia - www.electropedia.org

Le premier dictionnaire en ligne de termes électroniques et électriques. Il contient plus de 30 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans 14 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary

Plus de 55 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: csc@iec.ch.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Surface cleaning appliances – Floor treatment machines with or without traction drive, for commercial use – Methods of measuring the performance

Appareils de nettoyage de surface – Machines de traitements des sols avec ou sans commande de dispositif de déplacement, à usage commercial – Méthodes de mesure des performances

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

T

ICS 97.080

ISBN 978-2-8322-1824-2

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references	7
3 Terms, definitions and abbreviations	8
3.1 Terms and definitions	8
3.2 Abbreviations	8
4 General conditions for testing	8
4.1 Atmospheric conditions	8
4.2 Machine loading	8
4.3 Machine set-up	9
5 Working path width	9
5.1 Working scrubbing path width	9
5.2 Total pad/brush width	9
5.3 Maximum squeegee width	9
5.4 Minimum working sweeping path width	9
5.5 Maximum working sweeping path width	9
5.6 Measurement method	9
5.7 Reporting	9
6 Minimum aisle turn-around width.....	10
6.1 General.....	10
6.2 Measurement method.....	10
6.3 Reporting	10
7 Machine transport width.....	10
7.1 General.....	10
7.2 Measurement method.....	10
7.3 Reporting	10
8 Weight.....	10
8.1 Gross vehicle weight (GVW) taken from IEC 60335-2-72.....	10
8.2 Empty weight	11
8.3 Transportation weight.....	11
8.4 Reporting	11
9 Maximum scrub deck down force	11
9.1 General.....	11
9.2 Measurement method	11
9.3 Reporting	11
10 Maximum scrub deck down pressure	12
10.1 General.....	12
10.2 Determination method	12
10.3 Reporting	12
11 Rotating speed of pads, brushes and brooms	12
11.1 General.....	12
11.2 Measurement method – unloaded operation.....	12
11.3 Measurement method – loaded operation	12
11.4 Reporting	13

12	Maximum floor load and wheel contact pressure.....	13
12.1	General.....	13
12.2	Measurement method.....	13
12.3	Reporting.....	13
13	Speed.....	13
13.1	Maximum transport mode speed (power driven machines).....	13
13.2	Maximum working mode speed.....	13
13.3	Measurement method.....	13
13.4	Reporting.....	13
14	Sound.....	13
14.1	Sound power level.....	13
14.2	Sound pressure Level.....	14
14.3	Measurement method.....	14
14.4	Reporting.....	14
15	Vibration.....	14
15.1	Hand-arm system vibration total value.....	14
15.2	Whole-body vibration total value.....	14
15.3	Measurement method.....	14
15.4	Reporting.....	14
16	Solution flow rate.....	14
16.1	General.....	14
16.2	Measurement method.....	14
16.3	Reporting.....	14
17	Rated hopper volume capacity.....	15
17.1	General.....	15
17.2	Measurement method.....	15
17.3	Reporting.....	15
18	Tank capacity – solution tank and recovery tank.....	15
18.1	General.....	15
18.2	Measurement method – solution tank.....	15
18.3	Measurement method – recovery tank.....	15
18.4	Reporting.....	15
19	Recovery tank drain time.....	16
19.1	General.....	16
19.2	Measurement method.....	16
19.3	Reporting.....	16
20	Water coverage test.....	16
20.1	General.....	16
20.2	Machine preparation.....	16
20.3	Measurement method.....	16
20.4	Reporting.....	17
21	Battery amp-hour capacity.....	17
21.1	General.....	17
21.2	Reporting.....	17
22	Calculated battery-powered – (max.) machine run time.....	17
23	Rated power.....	17
23.1	Rated power for combustion engines (output power).....	17

23.2	Rated power input	17
23.3	Rated power for electric motors	18
23.4	Reporting	18
24	Air flow of sweeping/scrubbing machines	18
24.1	General.....	18
24.2	Measurement methods	18
24.3	Reporting	18
25	Maximum vacuum.....	18
25.1	General.....	18
25.2	Measurement method	19
25.3	Reporting	19
26	Filter area.....	19
26.1	General.....	19
26.2	Measurement method	19
26.3	Reporting	19
27	Productivity	19
Annex A (normative)	Evaluation of wheel contact pressure on hard floors and floor loading of floor cleaning machines	20
A.1	Mean pressure of wheels.....	20
A.2	Weight of the operable machine	20
A.3	Evaluation of mean wheel contact pressure	20
A.4	Evaluation of the working load	21
A.5	Data sheet	22
Annex B (informative)	Traction batteries for cleaning machines.....	23
Annex C (informative)	Realistic productivity at each scrub setting	24
Bibliography		25
Figure A.1	– Method for evaluating a wheel footprint	21
Figure A.2	– Method for evaluating the footprint of double-castors	21