

SLOVENSKI STANDARD

SIST EN ISO 11073-10427:2018

01-september-2018

**Zdravstvena informatika - Komunikacija osebnih medicinskih naprav - 10427. del:
Specialne naprave - Nadzor stanja napajanja za osebne medicinske naprave
(ISO/IEEE 11073-10427:2018)**

Health informatics - Personal health device communication - Part 10427: Device
specialization - Power status monitor of personal health devices (ISO/IEEE 11073-
10427:2018)

iTeh STANDARD PREVIEW
Medizinische Informatik - Kommunikation von Geräten für die persönliche Gesundheit -
Teil 10427: Gerätespezifikation - Monitor für den Energiestatus von Geräten für die
persönliche Gesundheit (ISO/IEEE 11073-10427:2018))

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-11073-10427/iso-11073-10427-2018)

[https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-
11073-10427/iso-11073-10427-2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-11073-10427/iso-11073-10427-2018)
Informatique de santé - Communication entre dispositifs de santé personnels - Partie
10427: Spécialisation des dispositifs - Moniteur de l'état de puissance des dispositifs de
santé personnels (ISO/IEEE 11073-10427:2018)

Ta slovenski standard je istoveten z: EN ISO 11073-10427:2018

ICS:

35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology
-----------	---	--

SIST EN ISO 11073-10427:2018

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018)

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 11073-10427

March 2018

ICS 35.240.80

English Version

**Health informatics - Personal health device
communication - Part 10427: Device specialization -
Power status monitor of personal health devices(ISO/IEEE
11073-10427:2018)**

Informatique de santé - Communication entre
dispositifs de santé personnels - Partie 10427:
Spécialisation des dispositifs - Moniteur de l'état de
puissance des dispositifs de santé personnels
(ISO/IEEE 11073-10427:2018)

Medizinische Informatik - Kommunikation von Geräten
für die persönliche Gesundheit - Teil 10427:
Gerätespezifikation - Monitor für den Energiestatus
von persönlichen gesundheitsbezogenen Geräten
(ISO/IEEE 11073-10427:2018)

This European Standard was approved by CEN on 13 March 2018.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents

Page

European foreword.....	3
------------------------	---

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018)

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

European foreword

This document (EN ISO 11073-10427:2018) has been prepared by Technical Committee ISO/TC 215 "Health informatics" in collaboration with Technical Committee CEN/TC 251 "Health informatics" the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

STANDARD PREVIEW
(standard title)

Endorsement notice

The text of ISO 11073-10427:2018 has been approved by CEN as EN ISO 11073-10427:2018 without any modification.

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018)

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

INTERNATIONAL
STANDARDISO/IEEE
11073-10427First edition
2018-01

**Health informatics — Personal health
device communication —****Part 10427:
Device specialization — Power status
monitor of personal health devices**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
*Informatique de santé — Communication entre dispositifs de santé
personnels —
Partie 10427: Spécialisation des dispositifs — Moniteur de l'état de
puissance des dispositifs de santé personnels*

SIST EN ISO 11073-10427:2018

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

**IEEE**Reference number
ISO/IEEE 11073-10427:2018(E)

© IEEE 2017

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018)

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>



COPYRIGHT PROTECTED DOCUMENT

© IEEE 2017

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO or IEEE at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Institute of Electrical and Electronics Engineers, Inc
3 Park Avenue, New York
NY 10016-5997, USA

stds.ipr@ieee.org
www.ieee.org

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information or the soundness of any judgments contained in its standards.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is called to the possibility that implementation of this standard may require the use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. ISO/IEEE is not responsible for identifying essential patents or patent claims for which a license may be required, for conducting inquiries into the legal validity or scope of patents or patent claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance or a Patent Statement and Licensing Declaration Form, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from ISO or the IEEE Standards Association.

ISO/IEEE 11073-10427 was prepared by the IEEE 11073 Standards Committee of the IEEE Engineering in Medicine and Biology Society (as IEEE Std 11073-10427-2016). It was adopted by Technical Committee ISO/TC 215, *Health informatics*, in parallel with its approval by the ISO member bodies, under the “fast-track procedure” defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE. IEEE is responsible for the maintenance of this document with participation and input from ISO member bodies.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018)

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

Health informatics—Personal health device communication

Part 10427: Device specialization— Power Status Monitor of Personal Health Devices

Sponsor

IEEE 11073™ Standards Committee

of the

IEEE Engineering in Medicine and Biology Society

Approved 22 September 2016

IEEE-SA Standards Board

[SIST EN ISO 11073-10427:2018](https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018)

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

ITIH STANDARD PREVIEW
(standards.iteh.ai)

ISO/IEEE 11073-10427:2018(E)

Abstract: Guidelines for establishing criteria for application, performance, interchangeability, tests, life cycle costs, and safety requirements of traction power rectifier transformers are established in this standard. Set forth are the electrical, mechanical and thermal design, manufacturing, and testing requirements for traction power rectifier transformers for dc electrification systems. Covered in this standard are liquid-immersed and dry-type transformers, including those with cast coil and epoxy resin encapsulated windings.

Keywords: basic lightning impulse insulation, BIL, commutating impedance, design optimization, electrical requirements, factory tests, ferroresonance, heavy rail, hot spot, IEEE 1653.1™, light rail, load cycle, overvoltage transient, partial discharge (PD) service conditions, tests, traction power duty cycle, traction power rectifier transformers, transit application

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 11073-10427:2018

<https://standards.iteh.ai/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-388c0d663433/sist-en-iso-11073-10427-2018>

The Institute of Electrical and Electronics Engineers, Inc.
3 Park Avenue, New York, NY 10016-5997, USA

Copyright © 2017 by The Institute of Electrical and Electronics Engineers, Inc.
All rights reserved. Published 3 February 2017. Printed in the United States of America.

IEEE is a registered trademark in the U.S. Patent & Trademark Office, owned by The Institute of Electrical and Electronics Engineers, Incorporated.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

PDF: ISBN 978-1-5044-2268-0 STD21081
Print: ISBN 978-1-5044-2269-7 STDPD21081

IEEE prohibits discrimination, harassment, and bullying.
For more information, visit <http://www.ieee.org/web/aboutus/whatis/policies/p9-26.html>.

Important Notices and Disclaimers Concerning IEEE Standards Documents

IEEE documents are made available for use subject to important notices and legal disclaimers. These notices and disclaimers, or a reference to this page, appear in all standards and may be found under the heading “Important Notices and Disclaimers Concerning IEEE Standards Documents.” They can also be obtained on request from IEEE or viewed at <http://standards.ieee.org/IPR/disclaimers.html>.

Notice and Disclaimer of Liability Concerning the Use of IEEE Standards Documents

IEEE Standards documents (standards, recommended practices, and guides), both full-use and trial-use, are developed within IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (“IEEE-SA”) Standards Board. IEEE (“the Institute”) develops its standards through a consensus development process, approved by the American National Standards Institute (“ANSI”), which brings together volunteers representing varied viewpoints and interests to achieve the final product. IEEE Standards are documents developed through scientific, academic, and industry-based technical working groups. Volunteers in IEEE working groups are not necessarily members of the Institute and participate without compensation from IEEE. While IEEE administers the process and establishes rules to promote fairness in the consensus development process, IEEE does not independently evaluate, test, or verify the accuracy of any of the information or the soundness of any judgments contained in its standards.

IEEE Standards do not guarantee or ensure safety, security, health, or environmental protection, or ensure against interference with or from other devices or networks. Implementers and users of IEEE Standards documents are responsible for determining and complying with all appropriate safety, security, environmental, health, and interference protection practices and all applicable laws and regulations.

IEEE does not warrant or represent the accuracy or content of the material contained in its standards, and expressly disclaims all warranties (express, implied and statutory) not included in this or any other document relating to the standard, including, but not limited to, the warranties of: merchantability; fitness for a particular purpose; non-infringement; and quality, accuracy, effectiveness, currency, or completeness of material. In addition, IEEE disclaims any and all conditions relating to: results; and workmanlike effort. IEEE standards documents are supplied “AS IS” and “WITH ALL FAULTS.”

Use of an IEEE standard is wholly voluntary. The existence of an IEEE standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard.

In publishing and making its standards available, IEEE is not suggesting or rendering professional or other services for, or on behalf of, any person or entity nor is IEEE undertaking to perform any duty owed by any other person or entity to another. Any person utilizing any IEEE Standards document, should rely upon his or her own independent judgment in the exercise of reasonable care in any given circumstances or, as appropriate, seek the advice of a competent professional in determining the appropriateness of a given IEEE standard.

IN NO EVENT SHALL IEEE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO: PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE PUBLICATION, USE OF, OR RELIANCE UPON ANY STANDARD, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE AND REGARDLESS OF WHETHER SUCH DAMAGE WAS FORESEEABLE.

ISO/IEEE 11073-10427:2018(E)**Translations**

The IEEE consensus development process involves the review of documents in English only. In the event that an IEEE standard is translated, only the English version published by IEEE should be considered the approved IEEE standard.

Official statements

A statement, written or oral, that is not processed in accordance with the IEEE-SA Standards Board Operations Manual shall not be considered or inferred to be the official position of IEEE or any of its committees and shall not be considered to be, or be relied upon as, a formal position of IEEE. At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that his or her views should be considered the personal views of that individual rather than the formal position of IEEE.

Comments on standards

Comments for revision of IEEE Standards documents are welcome from any interested party, regardless of membership affiliation with IEEE. However, IEEE does not provide consulting information or advice pertaining to IEEE Standards documents. Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments. Since IEEE standards represent a consensus of concerned interests, it is important that any responses to comments and questions also receive the concurrence of a balance of interests. For this reason, IEEE and the members of its societies and Standards Coordinating Committees are not able to provide an instant response to comments or questions except in those cases where the matter has previously been addressed. For the same reason, IEEE does not respond to interpretation requests. Any person who would like to participate in revisions to an IEEE standard is welcome to join the relevant IEEE working group.

Comments on standards should be submitted to the following address:

Secretary, IEEE-SA Standards Board
445 Hoes Lane
Piscataway, NJ 08854 USA

Laws and regulations

Users of IEEE Standards documents should consult all applicable laws and regulations. Compliance with the provisions of any IEEE Standards document does not imply compliance to any applicable regulatory requirements. Implementers of the standard are responsible for observing or referring to the applicable regulatory requirements. IEEE does not, by the publication of its standards, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

Copyrights

IEEE draft and approved standards are copyrighted by IEEE under U.S. and international copyright laws. They are made available by IEEE and are adopted for a wide variety of both public and private uses. These include both use, by reference, in laws and regulations, and use in private self-regulation, standardization, and the promotion of engineering practices and methods. By making these documents available for use and adoption by public authorities and private users, IEEE does not waive any rights in copyright to the documents.

Photocopies

Subject to payment of the appropriate fee, IEEE will grant users a limited, non-exclusive license to photocopy portions of any individual standard for company or organizational internal use or individual, non-commercial use only. To arrange for payment of licensing fees, please contact Copyright Clearance Center, Customer Service, 222 Rosewood Drive, Danvers, MA 01923 USA; +1 978 750 8400. Permission to photocopy portions of any individual standard for educational classroom use can also be obtained through the Copyright Clearance Center.

Updating of IEEE Standards documents

Users of IEEE Standards documents should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of amendments, corrigenda, or errata. An official IEEE document at any point in time consists of the current edition of the document together with any amendments, corrigenda, or errata then in effect.

Every IEEE standard is subjected to review at least every ten years. When a document is more than ten years old and has not undergone a revision process, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE standard.

In order to determine whether a given document is the current edition and whether it has been amended through the issuance of amendments, corrigenda, or errata, visit the IEEE Xplore at <http://ieeexplore.ieee.org/> or contact IEEE at the address listed previously. For more information about the IEEE-SA or IEEE's standards development process, visit the IEEE-SA Website at <http://standards.ieee.org>.

Errata

SIST EN ISO 11073-10427:2018

<https://standards.ieee.org/catalog/standards/sist/cc5e8ff6-82a0-46b6-978c-308cc0054339/sist-en-iso-11073-10427-2018>

Errata, if any, for all IEEE standards can be accessed on the IEEE-SA Website at the following URL: <http://standards.ieee.org/findstds/errata/index.html>. Users are encouraged to check this URL for errata periodically.

Patents

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken by the IEEE with respect to the existence or validity of any patent rights in connection therewith. If a patent holder or patent applicant has filed a statement of assurance via an Accepted Letter of Assurance, then the statement is listed on the IEEE-SA Website at <http://standards.ieee.org/about/sasb/patcom/patents.html>. Letters of Assurance may indicate whether the Submitter is willing or unwilling to grant licenses under patent rights without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination to applicants desiring to obtain such licenses.

Essential Patent Claims may exist for which a Letter of Assurance has not been received. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims, or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from the IEEE Standards Association.