BS EN IEC 63172:2020

BSI Standards Publication

Electrical accessories — Methodology for determining the energy efficiency class of electrical accessories

bsi.

National foreword

This British Standard is the UK implementation of EN IEC 63172:2020. It is identical to IEC 63172:2020.

The UK participation in its preparation was entrusted to Technical Committee PEL/23, Electrical accessories.

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

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English Version

Electrical accessories - Methodology for determining the energy efficiency class of electrical accessories (IEC 63172:2020)

Petit appareillage - Méthodologie pour déterminer la classe d'efficacité énergétique du petit appareillage (IEC 63172:2020)

Verfahren zur Bestimmung der Energieeffizienzklasse für elektrisches Zubehör (IEC 63172:2020)

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

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European foreword

The text of document 23/830/CDV, future edition 1 of IEC 63172, prepared by IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63172:2020.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-01-29
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2023-04-29

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

IEC 60364-8-1	NOTE	Harmonized as HD 60364-8-1

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICAL ACCESSORIES –

Methodology for determining the energy efficiency class of electrical accessories

FOREWORD

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International Standard IEC 63172 has been prepared by IEC technical committee 23: Electrical accessories.

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

CDV	Report on voting
23/830/CDV	23/863/RVC

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.

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.

IMPORTANT – The "colour inside" logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

INTRODUCTION

The electric energy efficiency of homes and buildings is continuously increasing by reducing the electric energy consumption of products. For example, changing from traditional incandescent lighting to LED lighting.

Specific electrical systems and accessories, for example home and building electronic systems (HBES) / building automation control systems (BACS), individual sensors, actors, actuators, dimmers and load shedding equipment (LSE), can contribute to additional energy savings.

Additional savings can also be achieved by managing and monitoring electrical energy use, depending on time, occupancy, inputs and needs from the grid.

HBES/BACS contribute to greater energy savings than the energy they consume to perform this task. However, as every watt counts, it is necessary to optimize their own energy consumption for given functionalities.

In the case of devices with more functionality (e.g. multi-channel switch actuators, control boxes, etc.), this document provides a methodology for determining the energy efficiency class of accessories based on the consumption of each function and their percentage of use. It aims to enable the system designer to determine the most efficient system considering the increasing user demand for additional functionalities.

ELECTRICAL ACCESSORIES –

Methodology for determining the energy efficiency class of electrical accessories

1 Scope

This document provides a methodology for determining the energy efficiency class of electrical accessories, to enable the system designer to determine the most efficient components for an electrical installation, also considering all functionalities.

NOTE Functionalities are for example: wireless communication, network connectivity, timer, energy monitoring.

This methodology is based on the energy consumption, taking into account the individual functions of the accessory.

The energy efficiency class approach contributes to the overall reduction of the energy consumption of an electrical installation.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
OFF mode
mode of the accessory having a direct control where the relevant electric load is deactivated and is able to be activated by deliberate action on the accessory by the user

Note 1 to entry: In this mode, the accessory consumes no energy.

3.2
standby mode
mode of the accessory having a direct control where the relevant electric load is deactivated and is able to be activated by deliberate action to the accessory by the user or the system

Note 1 to entry: In this mode, the accessory consumes energy to perform this function.

Note 2 to entry: This mode includes an interaction through displays regardless of the state of the electric load.

3.3
ON mode
mode of the accessory having a direct control where its electric load is activated and is able to be deactivated by deliberate action to the accessory by the user or the system

Note 1 to entry: In this mode, the accessory consumes energy.

Note 2 to entry: In this mode, the consumed energy can be greater than the energy consumption in the standby mode.