

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Electrical accessories –
Methodology for determining the energy efficiency class of electrical
accessories**

**Petit appareillage –
Méthodologie pour déterminer la classe d'efficacité énergétique du petit
appareillage**



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IEC Central Office
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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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 Description of the methodology	8
4.1 General.....	8
4.2 Relationship between accessories, their modes and energy efficiency class relevance.....	8
4.3 Functions embedded in electrical accessories.....	9
5 Energy efficiency classes	12
Annex A (informative) Measuring methods	15
A.1 Measuring method – General	15
A.2 Dimmers	15
A.2.1 Three-wire dimmer (see Figure A.1)	15
A.2.2 Two-wire dimmer (see Figure A.2).....	15
A.2.3 Three-wire dimmer with mechanical switch load side (see Figure A.3).....	16
A.2.4 Two-wire dimmer with mechanical switch load side (see Figure A.4).....	16
A.3 Presence movement detector.....	16
A.3.1 Two-wire presence detector (see Figure A.5).....	16
A.3.2 Three-wire presence detector (see Figure A.6).....	17
A.4 HBES/BACS	17
A.4.1 HBES/BACS control device (see Figure A.7)	17
A.4.2 HBES/BACS power supply (see Figure A.8).....	17
A.5 Socket-outlet with further function (see Figure A.9).....	18
A.6 Electronic switch relays	18
A.6.1 Two-wire electronic switch relay (see Figure A.10)	18
A.6.2 Three-wire electronic switch relay (see Figure A.11).....	18
Bibliography.....	19
Figure 1 – Levels of efficiency	12
Figure A.1 Three-wire dimmer measuring method	15
Figure A.2 Two-wire dimmer measuring method.....	15
Figure A.3 – Three-wire dimmer with mechanical switch measuring method.....	16
Figure A.4 – Two-wire dimmer with mechanical switch load side measuring method	16
Figure A.6 – Three-wire presence detector measuring method.....	17
Figure A.7 – HBES/BACS control device measuring method	17
Figure A.8 – HBES/BACS power supply measuring method	17
Figure A.9 – Socket-outlet with further function measuring method	18
Figure A.10 – Two-wire electronic switch relay measuring method	18
Figure A.11 – Three-wire electronic switch relay measuring method	18
Table 1 – Relationship between accessories, their modes and energy efficiency class (examples).....	9
Table 2 – Examples of functions in electrical accessories	10

Table 3 – Energy efficiency classes 12

Table 4 – Example of each function and the estimated time of usage for a dimmer 13

Table 5 – Energy efficiency points 14

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL ACCESSORIES –**Methodology for determining the energy efficiency class of electrical accessories**

FOREWORD

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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.

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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.