

Energy performance of lamp controlgear - Part 3:
Controlgear for tungsten-halogen lamps and LED light
sources - Method of measurement to determine the
efficiency of controlgear

EESTI STANDARDI EESSÕNA

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Energy performance of lamp controlgear - Part 3: Controlgear for
tungsten-halogen lamps and LED light sources - Method of
measurement to determine the efficiency of controlgear
(IEC 62442-3:2022)

Performance énergétique des appareillages de lampes -
Partie 3: Appareillages des lampes tungstène-halogène et
des sources lumineuses à LED - Méthode de mesurage
pour la détermination du rendement des appareillages
(IEC 62442-3:2022)

Energieeffizienz von Lampenbetriebsgeräten - Teil 3:
Betriebsgeräte für Halogenlampen und LED-
ModuleLichtquellen - Messverfahren zur Bestimmung des
Wirkungsgrades des Betriebsgerätes
(IEC 62442-3:2022)

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European foreword

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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) 2022-12-17
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60357 NOTE Harmonized as EN 60357

IEC 62384 NOTE Harmonized as EN IEC 62384

IEC 62442-1 NOTE Harmonized as EN IEC 62442-1

IEC 62442-2 NOTE Harmonized as EN IEC 62442-2

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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of measurement to determine the efficiency of controlgear**

**Performance énergétique des appareillages de lampes –
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lumineuses à LED – Méthode de mesurage pour la détermination du rendement
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CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 General	8
4.1 General notes on tests	8
4.2 Controllable controlgear	8
4.3 Measurement uncertainty	8
4.4 Sampling of controlgear for testing	8
4.5 Size of the test sample	8
4.6 Power supply	8
4.7 Supply voltage waveform	9
4.8 Substitution load	9
4.9 Thermocouple and temperature indicator	9
4.10 Instrument accuracy	9
4.11 Measuring circuits	10
4.12 Multi-rated voltage controlgear	10
4.13 Multi-power controlgear	10
4.14 Sensor and network connections	10
5 Method of measurement and calculation of the efficiency	10
5.1 Measurement set-up: input and output power	10
5.2 Efficiency calculation	11
5.3 Measurement set-up: input power in no-load mode	12
5.4 Standby power measurement	12
5.5 Networked standby power measurement	12
5.6 Reporting of power measurements	12
Bibliography	13
Figure 1 – Power losses measurement set-up for electromagnetic controlgear (transformer) and input and output power measurement set-up for convertor (electronic controlgear)	11
Table 1 – Typical nominal electricity supply details for some regions	9

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENERGY PERFORMANCE OF LAMP CONTROLGEAR –**Part 3: Controlgear for tungsten-halogen lamps and LED light sources –
Method of measurement to determine the efficiency of controlgear**

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IEC 62442-3 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lighting. It is an International Standard.

This third edition cancels and replaces the second edition published in 2018. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) this edition has been harmonized with IEC 62442-1 and IEC 62442-2;
- b) the reference to and use of the measurement methods for non-active power consumption in accordance with IEC 63103 have been added.

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

Draft	Report on voting
34C/1547/FDIS	34C/1550/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 62442 series, published under the general title *Energy performance of lamp controlgear*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

ENERGY PERFORMANCE OF LAMP CONTROLGEAR –

Part 3: Controlgear for tungsten-halogen lamps and LED light sources – Method of measurement to determine the efficiency of controlgear

1 Scope

This part of IEC 62442 defines measurement and calculation methods for specifying the efficiency and the standby power of controlgear for tungsten-halogen lamps and LED light sources.

NOTE 1 This includes electromagnetic transformers and electronic convertors for tungsten-halogen lamps, as well as electronic controlgear for LED light source(s).

NOTE 2 The term "LED light sources" includes LED modules and LED lamps.

This document is applicable for controlgear designed for use on DC supplies up to 1 000 V and/or AC supplies up to 1 000 V at 50 Hz or 60 Hz.

For multipurpose power supplies only the lighting part will be considered.

NOTE 3 Requirements for testing individual controlgear during production are not included.

This document does not apply to:

- controlgear which form an integral part of lamps (LED light sources);
- controlgear circuits with capacitors connected in series;
- controllable electromagnetic controlgear.

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 cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-845, *International Electrotechnical Vocabulary (IEV) – Part 845: Lighting* (available at <http://www.electropedia.org>)

IEC 61047:2004, *DC or AC supplied electronic step-down convertors for filament lamps – Performance requirements*

IEC 61347-1:2015, *Lamp controlgear – Part 1: General and safety requirements*

IEC 63103:2020, *Lighting equipment – Non-active mode power measurement*

IEC TS 63105:2021, *Lighting systems and related equipment – Vocabulary*

IEC Guide 115:2021, *Application of uncertainty of measurement to conformity assessment activities in the electrotechnical sector*