

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

## NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62442-3:2018 sisaldab Euroopa standardi EN IEC 62442-3:2018 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62442-3:2018 consists of the English text of the European standard EN IEC 62442-3:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 17.08.2018.	Date of Availability of the European standard is 17.08.2018.
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English Version

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 62442-3:2018)

Performance énergétique des appareillages de lampes -  
Partie 3: Appareillage de lampes tungstène-halogène et  
sources lumineuses à LED - Méthode de mesure pour la  
détermination du rendement des appareillages  
(IEC 62442-3:2018)

Energieeffizienz von Lampenbetriebsgeräten -  
Teil 3: Betriebsgeräte für Halogenlampen und LED-  
ModuleLichtquellen - Messverfahren zur Bestimmung des  
Wirkungsgrades des Betriebsgerätes  
(IEC 62442-3:2018)

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

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

## European foreword

The text of document 34C/1344/CDV, future edition 2 of IEC 62442-3, prepared by SC 34C "Auxiliaries for lamps" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62442-3:2018.

The following dates are fixed:

- latest date by which the document has to be (dop) 2019-03-07  
implemented at national level by  
publication of an identical national  
standard or by endorsement
- latest date by which the national (dow) 2021-06-07  
standards conflicting with the  
document have to be withdrawn

This document supersedes EN 62442-3:2014.

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## Endorsement notice

The text of the International Standard IEC 62442-3:2018 was approved by CENELEC as a European Standard without any modification.

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 62384.
IEC 62442-1:2018	NOTE	Harmonized as EN 62442-1 <sup>1</sup> (not modified).
IEC 62442-2	NOTE	Harmonized as EN 62442-2.

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<sup>1</sup> To be published.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61047	2004	DC or AC supplied electronic step-down convertors for filament lamps - Performance requirements	EN 61047	2004
IEC 61347-1	2015	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	2015
IEC 61347-2-2	-	Lamp controlgear - Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps	EN 61347-2-2	-
IEC 61347-2-13	-	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	EN 61347-2-13	-
IEC 61558-1	-	Safety of transformers, reactors, power supply units and combinations thereof - Part 1: General requirements and tests	EN 61558-1	-
IEC 61558-2-6	-	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers	EN 61558-2-6	-
IEC 62301 (mod)	2011	Household electrical appliances - Measurement of standby power	EN 50564	2011
IEC Guide 115	2007	Application of uncertainty of measurement - to conformity assessment activities in the electrotechnical sector	-	-

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## 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**

## FOREWORD

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International Standard IEC 62442-3 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition cancels and replaces the first edition published in 2014. This edition constitutes a technical revision and has been harmonized with IEC 62442-1 and IEC 62442-2.

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

CDV	Report on voting
34C/1344/CDV	34C/1378/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.

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 "<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.



## 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 a measurement method for the power losses of electromagnetic transformers as well as the power losses and the standby power of electronic convertors for tungsten-halogen lamps and for LED light source(s).

It is applicable for controlgear that are 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.

A calculation method of the efficiency of the mentioned controlgear for tungsten-halogen lamps and LED light source(s) is also defined.

This document applies to electrical controlgear-lamp circuits comprised solely of the controlgear and of the lamp(s) (LED light sources).

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

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

This document specifies the measurement method for the total input power, the standby power and the calculation method of the controlgear efficiency for all controlgear sold for domestic and normal commercial purposes operating with tungsten-halogen lamps and LED light source(s). The term "LED light sources" includes LED modules and LED lamps.

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 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 61347-2-2, *Lamp controlgear – Part 2-2: Particular requirements for DC or AC supplied electronic step-down convertors for filament lamps*

IEC 61347-2-13, *Lamp controlgear – Part 2-13: Particular requirements for DC or AC supplied electronic controlgear for LED modules*