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Electrical interface specifications for self ballasted lamps and controlgear in phase-cut dimmed lighting systems

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National foreword

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICAL INTERFACE SPECIFICATIONS FOR SELF BALLASTED LAMPS AND CONTROLGEAR IN PHASE-CUT DIMMED LIGHTING SYSTEMS

FOREWORD

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IEC TR 63037, which is a Technical Report, has been prepared by IEC technical committee 34: Lamps and related equipment.

The text of this Technical Report is based on the following documents:

Enquiry draft	Report on voting
34/305/DTR	34/325/RVC

Full information on the voting for the approval of this Technical Report 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- withdrawn,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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

This document describes the technical requirements for self-ballasted lamps and controlgear to work with phase-cut dimmers. For a complete picture of the technical requirements the user should also refer to the companion document that contains technical requirements and testing methods for phase-cut dimmers (IEC TR 63036).

ELECTRICAL INTERFACE SPECIFICATIONS FOR SELF BALLASTED LAMPS AND CONTROLGEAR IN PHASE-CUT DIMMED LIGHTING SYSTEMS

1 Scope

This document specifies the electrical interface between phase-cut dimming equipment and lighting equipment, such as LED integrated lamps and light sources with external controlgear, with the intention of helping designers of both types of equipment to develop products that will work together properly.

This document describes both the dimming phase and the off phase. In addition to the specification of the interface, test procedures are given for testing the proper operation.

It may be expected that controlgear fulfilling the requirements of this document are also suited to be used with electronic switches that use a circuitry comparable with that of a phase-cut dimmer, but do not contain means for the adjustability of the phase-cut angle.

Safety requirements are not covered by this document, but by respective product standards

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. Lighting* (available at http://www.electropedia.org)

IEC 62504, *General lighting – Light emitting diode (LED) products and related equipment - Terms and definitions*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62504 and IEC 60050-845 as well as the following 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

3.1.1
phase-cut dimmed lighting system
combination of a phase-cut dimmer and one or more controlgear and light sources