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Explanation and background information on electrical safety requirements in TC 34 standards

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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Explanation and background information on electrical safety requirements in TC 34 standards

FOREWORD

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IEC TR 63139 has been prepared by IEC technical committee 34: Lighting. It is a Technical Report.

This second edition cancels and replaces the first 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) new title and scope to enable the adding of further new subjects to the content of this document in the future;
b) new Clause 9 providing background information regarding the possible addition of currents in a lighting installation where luminaires are interconnected via their control ports;
c) new Clause 10 transferring Annex S of IEC 61347-1:2015 [1] (Examples of controlgear insulation coordination) from the controlgear safety standard into this document.

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

Draft	Report on voting
34/1416/DTR	34/1435/RVDTR

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 Technical Report 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/publications.

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,
– withdrawn, or
– revised.

INTRODUCTION

This document provides background information to the following subjects being introduced into IEC TC 34 standards to cover new technologies associated with the use of LED light sources and controllable products.

This document consists of the following subdivisions:

Clause 4 - Calculation of increased working voltage in case of insulation failure;

Clause 5 - Insulation between circuits following the circuits analysis in Clause 6;

Clause 7 - Use of protective extra low voltage (PELV);

Clause 8 - Insulation between LV supply and control line conductors;

Clause 9 - Summation of touch currents in a connected lighting system;

Clause 10 - Examples of insulation coordination situations between controlgear and luminaire.