ICS 29.020, 91.120.40 SLOVENSKÁ TECHNICKÁ NORMA Máj 2020

STN	**Hustota úderov bleskov založená na systémoch lokalizácie bleskov (LLS) Všeobecné princípy**	**STN EN IEC 62858** 34 1390

Lightning density based on lightning location systems (LLS) - General principles

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/20

Obsahuje: EN IEC 62858:2019, IEC 62858:2019

Oznámením tejto normy sa od 13.11.2022 ruší
STN EN 62858 (34 1390) z mája 2016

130685

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62858

November 2019

ICS 91.120.40; 29.020

Supersedes EN 62858:2015 and all of its amendments and corrigenda (if any)

English Version

Lightning density based on lightning location systems (LLS) - General principles (IEC 62858:2019)

Densité de foudroiement basée sur des systèmes de localisation de la foudre (LLS) - Principes généraux (IEC 62858:2019)

Blitzhäufigkeit basierend auf Blitzortungssystemen - Allgemeine Grundsätze (IEC 62858:2019)

This European Standard was approved by CENELEC on 2019-11-13. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

Ref. No. EN IEC 62858:2019 E

EN IEC 62858:2019 (E)

European foreword

The text of document 81/627A/FDIS, future edition 2 of IEC 62858, prepared by IEC/TC 81 "Lightning protection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62858:2019.

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)	2020-08-13
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-11-13

This document supersedes EN 62858:2015 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62858:2019 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 62305-1	-	Protection against lightning - Part 1: General principles	EN 62305-1	-
IEC 62305-2	-	Protection against lightning - Part 2: Risk management	EN 62305-2	-

IEC 62858

Edition 2.0 2019-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Lightning density based on lightning location systems – General principles

Densité de foudroiement basée sur des systèmes de localisation de la foudre (LLS) – Principes généraux

IEC 62858:2019-10(en-fr)

IEC 62858

Edition 2.0 2019-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Lightning density based on lightning location systems – General principles

Densité de foudroiement basée sur des systèmes de localisation de la foudre (LLS) – Principes généraux

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.020; 91.120.40

ISBN 978-2-8322-7457-6

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

LIGHTNING DENSITY BASED ON LIGHTNING LOCATION SYSTEMS – GENERAL PRINCIPLES

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62858 has been prepared by IEC technical committee 81: Lightning protection.

This second edition cancels and replaces the first edition published in 2015. This edition constitutes a technical revision.

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

Two informative annexes are introduced dealing with the determination of lightning density for risk calculation (Annex A) and ground strike point calculation methods (Annex B).

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

FDIS	Report on voting
81/627A/FDIS	81/634/RVD

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.

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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

International standards for lightning protection (e.g. IEC 62305-2) provide methods for the evaluation of the lightning risk on buildings and structures.

The lightning ground flash density N_G, defined as the mean number of flashes per square kilometre per year, and the ground strike point density N_{SG}, defined as the mean number of ground strike points per square kilometre per year are the primary input parameters to perform such an evaluation (see Annex A).

In many areas of the world data for risk evaluation are provided by lightning location systems (LLSs), but no common rule exists defining requirements either for their performance or for the elaboration of the measured data.

LIGHTNING DENSITY BASED ON LIGHTNING LOCATION SYSTEMS – GENERAL PRINCIPLES

1 Scope

This document introduces and discusses all necessary measures to make reliable and homogeneous the values of ground flash density, N_G and ground strike point density, N_{SG}, obtained from lightning location systems (LLSs) in various countries. Only parameters that are relevant to risk assessment are considered.

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 62305-1, *Protection against lightning – Part 1: General principles*

IEC 62305-2, *Protection against lightning – Part 2: Risk management*