

STN	Klasifikácia podmienok prostredia Časť 2-2: Podmienky vyskytujúce sa v prírode Zrážky a vietor	STN EN IEC 60721-2-2 03 8900
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Classification of environmental conditions - Part 2-2: Environmental conditions appearing in nature - Precipitation and wind

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. 02/25

Obsahuje: EN IEC 60721-2-2:2024, IEC 60721-2-2:2024

Oznámením tejto normy sa od 31.12.2027 ruší
STN EN 60721-2-2 (03 8900) z decembra 2013

140110



EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60721-2-2

December 2024

ICS 19.040

Supersedes EN 60721-2-2:2013

English Version

**Classification of environmental conditions - Part 2-2:
Environmental conditions appearing in nature - Precipitation and
wind
(IEC 60721-2-2:2024)**

Classification des conditions d'environnement - Partie 2-2:
Conditions d'environnement présentes dans la nature -
Précipitations et vent
(IEC 60721-2-2:2024)

Klassifizierung von Umgebungsbedingungen - Teil 2-2:
Natürliche Umgebungsbedingungen - Niederschlag und
Wind
(IEC 60721-2-2:2024)

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Europäisches Komitee für Elektrotechnische Normung

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

EN IEC 60721-2-2:2024 (E)**European foreword**

The text of document 104/1066/FDIS, future edition 3 of IEC 60721-2-2, prepared by TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60721-2-2:2024.

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IEC 60721-2-1 NOTE Approved as EN 60721-2-1



IEC 60721-2-2

Edition 3.0 2024-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Classification of environmental conditions –
Part 2-2: Environmental conditions appearing in nature – Precipitation and wind**

**Classification des conditions d'environnement –
Partie 2-2: Conditions d'environnement présentes dans la nature – Précipitations
et vent**





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IEC 60721-2-2

Edition 3.0 2024-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Classification of environmental conditions –
Part 2-2: Environmental conditions appearing in nature – Precipitation and wind**

**Classification des conditions d'environnement –
Partie 2-2: Conditions d'environnement présentes dans la nature –
Précipitations et vent**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 19.040

ISBN 978-2-8322-9873-2

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CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms and definitions	8
4 Rain	8
4.1 General.....	8
4.2 Global distribution of rainfall	9
4.3 Characteristics of rain	11
4.3.1 Formation	11
4.3.2 Types of rain	11
4.3.3 Distribution of raindrop sizes	12
4.3.4 Terminal velocity	12
4.4 Rates of rainfall	13
4.4.1 Instantaneous rates and clock-hour totals.....	13
4.4.2 Frequency of instantaneous rates	14
4.5 Heavy rates of rainfall	15
4.5.1 Thunderstorm rain	15
4.5.2 Prolonged heavy rain.....	15
4.5.3 Worldwide extremes	15
4.6 Spatial variations of rainfall rate.....	16
4.6.1 General	16
4.6.2 Rainfall rates below 2 mm/h.....	17
4.6.3 Rainfall rates between 2 mm/h and 10 mm/h	17
4.6.4 Rainfall rates between 10 mm/h and 25 mm/h.....	17
4.6.5 Rainfall rates exceeding 25 mm/h	18
4.7 Rainfall probabilities along a line	18
5 Snow	19
5.1 General.....	19
5.2 Global distribution of the incidence of snowy weather	19
5.3 Global distribution of the incidence and depth of lying snow.....	22
5.4 Mass, size, and fall-speed of snow.....	22
6 Hail.....	26
6.1 General.....	26
6.2 Global distribution of hailstones	26
6.3 Seasonal variations in global distribution	27
6.4 Diurnal variation.....	28
6.5 Size of hail.....	28
6.6 Terminal velocity.....	30
6.7 Duration and diameter of hail cell.....	31
7 Ice.....	32
7.1 General.....	32
7.2 Hoar frost.....	32
7.3 Rime ice (including in-cloud icing and freezing fog).....	32
7.4 Glazed frost (including freezing rain and freezing drizzle)	33
7.5 Wet snow accretion.....	34

7.6	Water content of fog and cloud at temperatures below 0 °C	34
7.7	Altitude variations	35
8	Wind	35
8.1	General.....	35
8.2	Mean wind speed	36
8.2.1	General	36
8.2.2	Variation of mean wind speed with height	37
8.2.3	Frequency of winds.....	39
8.3	Gustiness	46
8.3.1	General	46
8.3.2	Gust factor.....	46
8.3.3	Gust ratios.....	46
8.3.4	Variation of gust speed with height	47
8.4	Effects of topography	48
8.5	Wind types and extreme winds.....	48
8.6	Effects of wind	50
8.7	Wind in conjunction with other damaging agents	52
	Bibliography.....	53
	Figure 1 – Average annual rainfall (AAR) for global land areas, based on 1961 to 1990 data [1]	9
	Figure 2 – Estimated conversion factor for converting to hours at instantaneous rate [1].....	14
	Figure 3 – Average decay of correlation with distance, of 1 min rainfall rate and total storm rainfall rate [1].....	17
	Figure 4 – Estimated percentage of days on which an amount of snow equivalent to at least 1 mm of rainfall falls in northern and southern hemispheres [1]	21
	Figure 5 – Satellite derived average rainfall equivalent of lying snow and ice [1].....	25
	Figure 6 – Estimated average annual number of days per year with hail of diameter ≥ 15 mm [1].....	27
	Figure 7 – Estimated average seasonal number of days per year with hail of diameter ≥ 15 mm, based on post-processed global model data (oceans excluded) [1].....	29
	Figure 8 – Relationship between diameter and terminal velocity of spherical hailstones [1]	31
	Figure 9 – Air temperature and wind speed criteria for the formation of different types of ice [1] [15].....	33
	Figure 10 – Power spectrum of wind speed fluctuations [1]	36
	Figure 11 – Annual mean 10 m wind speed (m/s) for global land areas, averaged over the period 1961 to 1990 [1]	38
	Figure 12 – Measurement stations with station numbers	40
	Figure 13 – Vortex formation produced when wind strikes the corner of a structure	51
	Figure 14 – Contours of pressure coefficients produced by vortices	51
	Table 1 – Estimated number of raindrops per cubic metre for various rates of rainfall [1]	12
	Table 2 – Terminal velocity of raindrops in still air [1].....	13
	Table 3 – Duration in the average year of instantaneous point rainfall equalling or exceeding specified rates [1]	14
	Table 4 – Predicted worldwide extremes of rainfall [1].....	15

Table 5 – Observed world maximum rates of rainfall [1]	16
Table 6 – Estimated duration (h) in the average year when stated distances along given tracks simultaneously have rainfall at or exceeding specific rates [1]	18
Table 7 – Snow crystals: relation between mass (mg) and diameter (mm) of the sphere which just contains the crystal [1]	23
Table 8 – Values of α and β for different crystal types [11]	24
Table 9 – Number of hailstones per cubic metre (at about 4 000 m) for specified maximum hailstone size and specific ranges of stone size [1]	30
Table 10 – Meteorological parameters controlling atmospheric ice accretion [15]	33
Table 11 – Details of stations, their location, elevation, observation rate and total number of observations [19]	41
Table 12 – Percentile mean wind speed and percentage frequencies of measured wind speeds for each station [19] [20] [21]	43
Table 13 – Terrain type and gust factor [1]	46
Table 14 – Ratio of the probable maximum gust speed, averaged over time, to the mean hourly wind speed for level sites in open country [1]	47
Table 15 – Suggested ratios for estimating maximum gust speed over short periods from a known mean hourly wind speed	47
Table 16 – Factors for calculating maximum mean wind speed for various intervals using the mean speed measured over the hour [1]	47
Table 17 – Spatial and temporal scales of meteorological wind systems plus characteristic wind speed ranges	49

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –

Part 2-2: Environmental conditions appearing in nature – Precipitation and wind

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IEC 60721-2-2 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test. It is an International Standard.

This third edition cancels and replaces the second edition published in 2012. This edition constitutes a technical revision.

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

- a) the layout of the information provided has been re-organized;
- b) the information provided has been extensively enhanced and revised;
- c) new information on wind severities has been included.

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

Draft	Report on voting
104/1066/FDIS	104/1074/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/publications.

A list of all parts in the IEC 60721 series, published under the general title *Classification of environmental conditions*, can be found on the IEC website.

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INTRODUCTION

This part of IEC 60721 presents fundamental properties, quantities for characterization, and a classification of environmental conditions dependent on precipitation and wind relevant to electrotechnical products. The information presented is intended to be used as background material when selecting appropriate severities of parameters related to precipitation and wind for product applications.

Precipitation encompasses all forms of hydrometeors, both liquid and solid, which are free in the atmosphere, and which reach the Earth's surface. At altitudes below the freezing level, precipitation can occur as liquid or solid particles but above this level snow or hail will predominate. For this document, the different forms of hydrometeors are addressed separately and under the more commonly referred to meteorological conditions of rain, snow and hail. Also encompassed are icing conditions but only that occurring at ground level.

This document additionally and separately addresses wind.

The majority of the information presented in this document has been assembled by the UK Met Office from published sources as well as historical and forecasting weather records. The information has been assembled and maintained for the UK Ministry of Defence for equipment design and testing purposes [1]¹. The historical meteorological data employed for this work meets World Meteorological Organization criteria for validity. However, such data are only available from a limited number of worldwide locations (typically a few hundred). Forecasting weather records, which were extensively utilized for this work, are available from a significant number of locations (typically tens of thousands) but are not necessarily verified. Whenever the latter information has been used, an appropriate strategy was adopted to remove spurious data.

¹ Numbers in square brackets refer to the Bibliography.

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –

Part 2-2: Environmental conditions appearing in nature – Precipitation and wind

1 Scope

This part of IEC 60721 presents fundamental properties, quantities for characterization, and a classification of environmental conditions dependent on precipitation and wind relevant to electrotechnical products.

The information presented within this document is intended to be used as background material when selecting appropriate severities of parameters related to precipitation and wind for product applications.

For the purpose of this document, precipitation is considered to encompass all forms of hydrometeors, both liquid and solid, which are free in the atmosphere, and which reach the Earth's surface. The different forms of hydrometeors are addressed separately and under the more commonly referred to meteorological conditions of rain, snow and hail. Whilst icing conditions are additionally considered, only that occurring at ground level, is addressed.

This document separately addresses the climatic condition of wind and provides methodologies and quantitative information to enable wind severities and frequencies to be estimated worldwide.

2 Normative references

There are no normative references in this document.

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