



**SLOVENSKI STANDARD**  
**SIST EN 60721-3-6:2001/A2:2001**  
**01-september-2001**

---

**Amendment to section 6 of EN**

Classification of environmental conditions -- Part 3: Classification of groups of environmental parameters and their severities -- Section 6: Ship environment

Klassifizierung von Umweltbedingungen -- Teil 3: Klassen von Umwelteinflußgrößen und deren Grenzwerte -- Hauptabschnitt 6: Einsatz auf Schiffen

**iTeh STANDARD PREVIEW**

(standards.iteh.ai)  
Classification des conditions d'environnement -- Partie 3: Classification des groupements des agents d'environnement et de leurs sévérités -- Section 6: Environnement des navires

[SIST EN 60721-3-6:2001/A2:2001](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

[https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

[d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

**Ta slovenski standard je istoveten z: EN 60721-3-6:1993/A2:1997**

---

**ICS:**

19.040      Preskušanje v zvezi z      Environmental testing  
                 okoljem

**SIST EN 60721-3-6:2001/A2:2001      en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 60721-3-6:2001/A2:2001

<https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001>

EUROPEAN STANDARD

EN 60721-3-6/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 1997

UDC 621.3:620.193.001.33:629.12  
ICS 19.040

Descriptors: Environmental conditions, ship environment

English version

**Classification of environmental conditions**  
**Part 3: Classification of groups of environmental**  
**parameters and their severities**  
**Section 6: Ship environment**  
**(IEC 721-3-6:1987/A2:1996)**

Classification des conditions  
d'environnementPartie 3: Classification des groupements  
des agents d'environnement et de leurs  
sévérités

Section 6: Environnement des navires

(CEI 721-3-6:1987/A2:1996) [ST EN 60721-3-6:2001/A2:2001](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

Klassifizierung von Umweltbedingungen

Teil 3: Klassen von Umwelteinfluß-

größen und deren Grenzwerte

Hauptabschnitt 6: Einsatz auf Schiffen

(IEC 721-3-6:1987/A2:1996)

<https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001>

This amendment A2 modifies the European Standard EN 60721-3-6:1993; it was approved by CENELEC on 1996-12-09. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

# CENELEC

European Committee for Electrotechnical Standardization

Comité Européen de Normalisation Electrotechnique

Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

### Foreword

The text of document 75/282/FDIS, future amendment 2 to IEC 721-3-6:1987, prepared by IEC TC 75, Classification of environmental conditions, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60721-3-6:1993 on 1996-12-09.

The following dates were fixed:

- latest date by which the amendment has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 1997-09-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 1997-09-01

---

### Endorsement notice

The text of amendment 2:1996 to the International Standard IEC 721-3-6:1987 was approved by CENELEC as an amendment to the European Standard without any modification.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 60721-3-6:2001/A2:2001

<https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001>



**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC**

**721-3-6**

1987

AMENDEMENT 2  
AMENDMENT 2

1996-11

Amendement 2

**Classification des conditions d'environnement –**

**Partie 3:**

**Classification des groupements des agents  
d'environnement et de leurs sévérités –**

**Section 6: Environnement des navires**

[SIST EN 60721-3-6:2001/A2:2001](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76e7a223-6-2001-a2-2001)

<https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76e7a223-6-2001-a2-2001>

**Amendment 2**

**Classification of environmental conditions –**

**Part 3:**

**Classification of groups of environmental  
parameters and their severities**

**Section 6: Ship environment**

© CEI 1996 Droits de reproduction réservés — Copyright - all rights reserved

Bureau central de la Commission Electrotechnique Internationale 3, rue de Varembe Genève, Suisse



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

**D**

● Pour prix, voir catalogue en vigueur  
For price, see current catalogue

## FOREWORD

This amendment has been prepared by IEC technical committee 75: Classification of environmental conditions.

The text of this amendment is based on the following documents:

FDIS	Report on voting
75/282/FDIS	75/291/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

Page 9

#### 4 Classification of groups of environmental parameters and their severities

Add, after the first paragraph, the following new paragraph:

Climatic conditions in tropical areas as specified in classes 6K6 and 6K7 are explained in annex B.

Page 11

### Table I – Classification of climatic conditions (standards.iteh.ai)

Add columns 6K6 and 6K7 as follows (columns "Environmental parameter" and "Unit" are repeated for information only):

Environmental parameter	Unit	Class	
		6K6 <sup>6)</sup>	6K7 <sup>6)</sup>
a) Low temperature, air	°C	+5	-20
b) Low temperature, water	°C	+15	+15
c) High temperature, air	°C	+55	+70
d) High temperature, surfaces <sup>4)</sup>	°C	+70	+70
e) High temperature, water	°C	+35	+35
f) Gradual change of temperature, air/air	°C	+5/+40	-20/+40
	°C/min	3	3
g) Change of temperature, air/water	°C	+40/+15	+40/+15
h) Humidity, not combined with rapid temperature changes	%	95	95
	°C	+35	+45
i) Humidity, combined with rapid temperature changes, air/air at high relative humidities	%	95	95
	°C	+5/30	-20/+35
j) Humidity, combined with rapid temperature changes, air/air at high water content <sup>5)</sup>	g/m <sup>3</sup>	60	60
	°C	+55/+15	+70/+15
k) Low relative humidity	%	10	10
	°C	+30	+30
l) Movement of surrounding medium, air	m/s	50	50
m) Precipitation, rain	mm/min	15	15
n) Radiation, solar	W/m <sup>2</sup>	1120	1120
o) Radiation, heat	W/m <sup>2</sup>	1200	1200
p) Water from sources other than rain	m/s	10	10
q) Wetness	None	Wet surfaces	

Add note 6:

6) Further information on classes 6K6 (tropical damp) and 6K7 (tropical dry) is given in annex B.

Page 21

## A.2 K Climatic conditions

Add, on page 23, the following descriptions of new classes, after the description of class 6K5:

- 6K6 Class 6K6 represents the conditions covered by the Warm Damp and Warm Damp Equable types of Open-Air Climate (tropical damp type of climate, in areas with tropical rainforests).
- 6K7 Class 6K7 represents the conditions covered by the Warm Dry, Mild Warm Dry and Extremely Warm Dry types of Open-Air Climate (tropical dry type of climate, in areas near the tropics such as deserts).

Page 25

Add the following new annex B:

**Annex B**  
(informative)

**Explanation of the environmental conditions in tropical areas  
as specified in classes 6K6 and 6K7**

iTech STANDARD PREVIEW  
(standards.iteh.ai)

## B.1 General

The tropics are the areas within the Northern and Southern tropics (between 23° 27' south and 23° 27' north). <https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001>

In tropical areas the following types of open-air climate, as specified in IEC 721-2-1, apply:

- Warm Dry (WDr)
- Mild Warm Dry (MWDr)
- Extremely Warm Dry (EWDr)
- Warm Damp (WDa)
- Warm Damp Equable (WDaE)

The tropics are the zones of the earth in which during daytime, high temperatures, frequently combined with high precipitation, prevail. In these areas seasonal changes are scarcely pronounced.

The tropical climate extends from Warm Damp climatic conditions in tropical rainforests at the equator to the Warm Dry climate in the deserts near the tropics. Consequently, two types of tropical climate should be distinguished:

- *tropical dry* as a combination of the Warm Dry, Mild Warm Dry and Extremely Warm Dry types of climate, and
- *tropical damp* as a combination of the Warm Damp and Warm Damp Equable types of climate.

There are also regions where the climate, owing to the particular altitude, deviates considerably from the usual conditions of these latitudes, for example solar radiation and air pressure or ice and snow on mountain summits. In many areas in the tropics, environmental conditions are identified by uniform conditions and in other regions by very extreme climatic conditions:

**Balanced conditions:**

- minimum daily temperature fluctuations of less than 1 °C and annual temperature fluctuations of maximum 6 °C;
- balanced duration of daylight periods between 10,5 h and 13,5 h;
- uniform intensity of solar radiation;
- balanced conditions for an abundant fauna.

**Extreme conditions:**

- precipitation: rainfall the whole year round near the equator, heavy rainfall during certain periods of the year near the tropics;
- tropical cyclones in sea areas: wind velocities of 30 m/s with peaks attaining more than 60 m/s, for example in typhoons in the Western Pacific and in hurricanes in the Caribbean Sea;
- unfavourable soil conditions: erosion of humus and minerals in areas with heavy rainfalls;
- rapid drying of soil in the desert as a result of high temperatures and strong winds;
- lush vegetation in tropical rainforests, less dense vegetation in mountain forests;
- grass areas of savannahs and steppes, absence of vegetation in the desert.

**B.2 Climatograms**

[SIST EN 60721-3-6:2001/A2:2001](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

[https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

[d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001](https://standards.iteh.ai/catalog/standards/sist/199dfc55-bd50-4b05-8031-d76ecec21c9c/sist-en-60721-3-6-2001-a2-2001)

Climatograms for the two classes describing climatic conditions in tropical areas are given in figure B.1. They are based on the mean value of annual extreme values of air temperature and humidity for the types of climate specified in B.1 above.