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(IEC 721-3-0 : 1984)

**Classification of environmental
conditions Part 3 : Classification
of groups of environmental
parameters and their severities
Introduction**

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

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In the event of any doubts arising as to the contents,
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Classification of environmental conditions

Part 3: Classification of groups of environmental parameters and their severities

Introduction

Foreword for Japanese Industrial Standard

This Japanese Industrial Standard has been prepared based on the first edition issued in 1984 of "IEC 721-3-0, *Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities Introduction*" and Amendment 1 (1987) without changing the technical contents. The contents of the Amendment are compiled into this text.

The portions underlined with dots in this Standard are not included in the original International Standard.

1. Scope

This Standard establishes classes of environmental parameters and their severities, covering the extreme (short-term) conditions which may be met by a product when being transported, installed, stored and used. Separate groups of classes are given for different product applications (e.g. weather-protected stationary, mounted in ground vehicles, transportation). The classes also take into account the degree of restriction of the use of the product from very restricted conditions (e.g. in temperature-controlled rooms) to unrestricted conditions.

The classification covers natural as well as man-made conditions.

2. Object

This Introduction is a guide for the use of the standards related to classification of groups of environmental parameters and their severities. It contains background information including information on application and limitation of the classes given in various parts of this Standard. It describes the difference between the environmental conditions the product will meet during its life, described by the classes in this Standard, and conditions of test used to assure that the product will work satisfactorily under such environmental conditions. The use of this Standard in the design, limitation of conditions and protection is also included. The differences are explained between extreme environmental conditions with a small probability of being exceeded, normally approached only for short periods, and more long-lasting normal environmental conditions.

This Introduction is also a guide related to the duration and frequency of occurrence when the influence of environmental parameters is described.

Reference to this Standard is strongly recommended in order to avoid misuse of the classes defined in each standard of this classification of groups of environmental parameters and their severities.

3. Content and layout

Separate groups of classes of environmental conditions are given for the following product applications:

IEC Publications 721-3-1: Storage;

721-3-2: Transportation;

721-3-3: Stationary Use, Weather-protected;

721-3-4: Stationary Use, Non-weatherprotected;

721-3-5: Ground Vehicle Installations;

721-3-6: Ship Environment;

721-3-7: Portable and Non-stationary Use.

The classes are identified by:

- a digit defining the application (1 for storage, 2 for transportation, 3 for stationary use, etc.);
- a letter for climatic conditions (K), biological conditions (B), chemically active substances (C), mechanically active substances (S) or mechanical conditions (M). To be extended if necessary;
- a further digit indicating severity, where a higher digit normally indicates more stringent conditions. A class may be further divided into H (High) or L (Low) to allow for conditions where, for example, the temperature may be severely low but never high.

Example: Class 2K3, where: 2 = transportation;
K = climatic conditions;
3 = severity.

This Standard contains tables giving all classes, including the severity of each environmental parameter for each class. In addition, every standard includes an appendix giving details of conditions which products are assumed to meet and which form a basis for the classes. These appendices are intended to guide the user of the standard in his selection of the class appropriate to his special product application.

4. Background information for the selection of environmental parameters and severities for the classes

The environmental parameters listed for a class are the conditions covered by the class to which a product will be subjected. They are selected by using the complete set of environmental parameters in **JIS C 0110-1995** *Classification of environmental conditions, Part 1: Classification of environmental parameters and their severities*, as a “check list”.

Informative reference: JIS C 0110-1995 is identical to IEC 721-1: 1990 *Classification of environmental conditions Part 1: Classification of environmental parameters and their severities*.