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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 4798.3-2023

**Classification of environmental conditions - Classification of
groups of environmental parameters and their severities - Part
3: Stationary use at weatherprotected locations**

环境条件分类 环境参数组分类及其严酷程度分级 第3部分：有气候防护场所固定
使用

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Foreword

This document was issued on 23 May 2023 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 December 2023.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 19.040, Chinese classification A21.

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is part 3 of GB/T 4798. GB/T 4798 has issued the following parts.

---GB/T 4798.1-2019 Classification of environmental conditions Classification of environmental parameter groups and their severity classification Part 1. Storage;

---GB/T 4798.2-2021 Classification of environmental conditions Classification of environmental parameter groups and their severity classification Part 2. Transportation and handling;

Fixed use in weather protection places;

---GB/T 4798.4-2023 Classification of environmental conditions Classification of environmental parameter groups and their severity classification Part 4. Airless

Fixed use in weather protection places;

---GB/T 4798.5-2007 Environmental conditions for the application of electrical and electronic products Part 5. Use of ground vehicles;

---GB/T 4798.6-2012 Classification of Environmental Conditions Classification of environmental parameter groups and their severity classification for marine use;

---GB/T 4798.7-2007 Environmental conditions for the application of electrical and electronic products Part 7. Portable and non-fixed use;

---GB/T 4798.9-2012 Classification of Environmental Conditions Classification of Environmental Parameter Groups and Classification of Severity

climate;

---GB/T 4798.10-2006 Introduction to environmental conditions for the application of electrical and electronic products.

This document replaces GB/T 4798.3-2007 "Environmental conditions for the application of electrical and electronic products - Part 3. Stationary use in places with weather protection

Compared with GB/T 4798.3-2007, except for structural adjustment and editorial changes, the main technical changes are as follows.

- a) Added "Terms and Definitions" (see Chapter 3);
- b) Added the descriptions of "short-term impact of extreme environmental conditions" and "long-term impact of non-extreme environmental stress" (see Chapter 4);
- c) "Climatic environmental conditions" and "mechanical active substance conditions", the old classification is replaced by the new classification (see 5.2, 5.6,.2007 edition

Introduction

GB/T 4798 "Environmental Condition Classification Environmental Parameter Group Classification and Severity Classification" covers the product in storage, transportation and handling,

Environmental conditions that may be encountered during installation and use. For different conditions of use (such as fixed use with weather protection, installation on the ground vehicle

On-vehicle, transport and handling) products are given separate parameter classes. These classifications also take into account the extent to which the product is limited in use.

degrees, from severely restricted conditions (such as in a temperature-controlled room) to unlimited conditions. GB/T 4798 is proposed to be composed of the following 10 parts.

--- Part 1. Storage. The purpose is to give the classification of the environmental parameters and their severity during the storage process of the product.

--- Part 2. Transport and handling. The purpose is to give the environmental parameter group and its severe cool rating.

--- Part 3. Stationary use in weather-protected places. The purpose is to give the products that are subjected to fixed use in weather-protected places

Environmental parameter groups and their severity ratings.

--- Part 4. Stationary use without weather protection. The purpose is to give the product to withstand the fixed use in the place without weather protection

Environmental parameter groups and their severity ratings.

--- Part 5. Use of ground vehicles. The purpose is to give the environmental parameters to which products installed in vehicles but not constituting vehicles are subjected

Groups and their severity ratings.

--- Part 6. Marine. The purpose is to give the environmental parameter group and its severity classification that the products installed on the ship are subjected to.

--- Part 7. Portable and non-stationary use. The purpose is to give the environmental parameter groups that the products for portable and non-fixed use are subjected to and its severity rating.

--- Part 9. Microclimate inside the product. The purpose is to give the environmental parameter group and its severe degree that the internal components of the product are subjected to

degree grading.

--- Part 10. Introduction. The purpose is to give guidelines for the use of GB/T 4798.

--- Part 11. Environmental severity distribution map drawing. The purpose is to draw the distribution map of the severity of the service environment of the product

method.

This revision to GB/T 4798.3 is equivalent to adopting IEC 60721-3-3:2019 "Classification of Environmental Conditions Part 3-3. Environmental Parameters

Group classification and its severity classification are fixed for use in climate protection

places. After revision, it is consistent with the level of international standards, which is conducive to

Eliminate technical barriers to trade and better promote trade, exchanges and technical cooperation.

Classification of environmental conditions

Classification of Environmental Parameter Groups and Severity Grading

Part 3. Fixed use in weather protected places

1 Scope

GB/T 4798.3-2023 covers products installed at a fixed location in a place that offers some climatic protection - a building, a room, a shelter or a closed cabinet. General requirements come first, then the environmental conditions in groups with a severity classification for each: climatic conditions marked K, special climatic conditions marked Z, biological conditions marked B, chemically active substances marked C, mechanically active substances marked S, and mechanical conditions marked M, with an informative annex on the seismic environment. Only conditions acting directly on the product are considered, and a class states the extremes the product must withstand rather than predicting how long it will last. Shelter is not the same thing as safety: heat builds in an unventilated room, condensation forms when a cold machine meets warm damp air, cleaning agents and dust reach a control cabinet, and a floor carries the vibration of machinery standing next to it. Naming a class turns all of that into something a purchase order can state and a test house can reproduce, instead of the vague word indoor. Companion to part 4 for locations with no weather protection, it is used by equipment designers, purchasers and anyone writing a specification.

This document is applicable to the environmental parameters and severity classification of products that are fixedly used in climate protection places.

The environmental conditions referred to in this document are limited to those that directly affect the performance of the product, and only such environmental conditions are considered. This document has no special

Describe the effect of these conditions on the product.

This document does not cover environmental conditions directly related to explosion hazards, microclimates within the product, flame extinguishing and ionizing radiation, nor other

unforeseen environmental conditions. The occurrence of unforeseen environmental conditions may be a special case. This document does not cover building standards, legal or equipment covered by regulations.