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

GB/T 4797.5-2017

**Classification of environmental conditions -- Environmental
conditions appearing in nature -- Precipitation and wind**

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Overview

4.1 General instructions

4.2 Precipitation

4.3 wind

Foreword

GB/T 4797 includes the following eight sections.

--- GB/T 4797.1 Environmental conditions Classification of natural conditions Temperature and humidity;

--- GB/T 4797.2 Environmental conditions Classification Natural conditions Air pressure;

--- GB/T 4797.3 Electrotechnical products natural environment conditions of biological;

--- GB/T 4797.4 Classification of environmental conditions Natural environmental conditions Solar radiation and temperature;

--- GB/T 4797.5 Environmental conditions Classification Natural environmental conditions Precipitation and wind;

--- GB/T 4797.6 Classification of environmental conditions Natural environmental conditions Dust, sand, salt spray;

--- GB/T 4797.7 Classification of environmental conditions for electrical and electronic products Natural environmental conditions Seismic vibration and shock;

--- GB/T 4797.8 Electrotechnical products Environmental conditions Classification Natural environmental conditions Fire exposure.

This section GB/T 4797 Part 5.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 4797.5-2008 "Environmental conditions for electrical and electronic products classification of natural environmental conditions precipitation and the wind."

This section compared with GB/T 4797.5-2008 main changes are as follows.

- Standard name changed to "environmental conditions classification of natural conditions precipitation and wind";
- The original standard Chapter 3, Chapter 5, 5.4 suspended paragraphs were added to the title;
- Modify the simplified "precipitation" and "wind" description (see 4.2 and 4.3);
- Modify formula (1) ~ formula (4);
- Modify Table 1, add the comments in Table 2, delete Table 3, Table 4, Figure 1 ~ Figure 5;
- Delete Appendix NA.

This section uses the translation method is equivalent to using IEC 60721-2-2..2012 "Environmental Conditions Classification Part 2-2. natural environmental conditions down Water breeze. "

The documents of our country that are in conformity with the corresponding international documents that are normative references in this part are as follows.

- GB/T 4796.1-2017 Environmental classification - Part 1. Environmental parameters and their severity (IEC 60721-1..2002, IDT)

This section made the following editorial changes.

- In order to unify with our existing standard series, the title of this section to "environmental conditions classification of natural environmental conditions and precipitation wind";
- 6.6 Added note.

This part of the National Electrical and Electronic Environmental and Environmental Test Standardization Technical Committee (SAC/TC8) and focal point.

This section Drafted by. China Electric Apparatus Research Institute Co., Ltd., CNOOC Tianjin Chemical Research and Design Institute Co., Ltd., Fujian Province

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1 Scope

This section GB/T 4797 specifies the basic characteristics of precipitation and wind

environmental conditions related to electrical and electronic products, quantitative description and classification.

The purpose of this section is to provide background information on the severity of the product application in selecting the appropriate precipitation and wind related parameters.

When selecting the appropriate severity of precipitation and wind-related parameters for product applications, the values specified in IEC 60721-1 are preferred.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 60721-1 Classification of environmental conditions - Part 1. Environmental parameters and classification (Classification of environmental conditions - Part 1. Environmental parameters and their severities)

3 Terms and definitions

no.

4.1 General instructions

The earth's atmosphere is constantly moving, and local heat, cold and wet. As a result, a gradient in density occurs, creating a high pressure zone

And low pressure area. Due to the Coriolis force of the Earth's rotation, the wind does not directly blow from the high pressure zone to the low pressure zone.

The continuous horizontal movement of air, causing a slow rise in the vast region of movement, or surface heat, causing local hot air rose.

Ascending movement of air causes the pressure and temperature to drop, and when both fall sufficiently low, precipitation can form. For example, at 20 degrees C, the air most

Large water vapor content of 17.3g/m³, if dropped to 0 degrees C, the maximum water vapor content in the air is only 4.8g/m³.

4.2 Precipitation

Specific types of precipitation rain, hail or snow, are the result of complex changes in clouds.

The formation of raindrops or ice crystals depends on various conditions such as vertical air flow, temperature distribution, and the synthesis of water droplets or ice crystals in the clouds

process.

4.3 wind

Wind refers to the earth's atmosphere from the high-pressure zone to the low-pressure zone lateral movement.

The wind is often expressed in terms of strength and direction of the wind. Gusts are high-speed winds of short duration. Winds last for a long time according to their flat

Both have different names, for example, breeze, gale, storm, hurricane, typhoon. The scale of the formation of wind is also very different. for tens of minutes