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CCS A21



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

GB/T 14091-2009

Replacing GB/T 14091-1993

**Classification of environmental parameters and their severities
for machinery-products**

机械产品环境参数分类及其严酷程度分级

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Foreword

This standard replaces GB/T 14091-1993 "machinery products Classification of environmental parameters and their severities." This standard compared with GB/T 14091-1993, mainly to do with the following modifications.

--- According to GB/T 1.1-2000 "Standardization Guide Part 1. Structure and rules are written standard" requirements of the grid layout The formula has been modified;

--- Remove the GB/T 14091-1993 Chapter 2, "reference standard" in this standard last increase "References";

11 In addition to peak displacement 1.5mm, peak acceleration 10m/s² and peak displacement of 2.5mm, peak acceleration 10m/s² two sets of values, and the peak displacement 3mm, peak acceleration 10m/s² to peak displacement 3.5mm, peak acceleration Of 10m/s². This standard by the national electric and electronic products environmental conditions and environmental tests for Standardization Technical Committee (SAC/TC8) and focal points. This standard was drafted. Guangzhou Electric Apparatus Research Institute. The main drafters of this standard. Zhaopei Yu, Liu Kuifang, Yang. This standard replaces the previous standard release case. GB/T 14091-1993. Classification of environmental parameters and mechanical products Their severities

1 Scope

GB/T 14091-2009 is the Chinese national standard on classification of environmental parameters and their severities for machinery-products, in the field of testing. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 6 May 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November

2009. Classification: ICS 19.020, CCS A21. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the classification of environmental parameters and mechanical products in the transportation, storage, installation and use in harsh environmental parameters encountered in the process Graded degrees. This standard is applicable to mechanical products, including farm machinery, internal combustion engines, construction machinery, mining machinery, heavy machinery, lifting the transport machinery, petrochemicals General machinery, electrical products, instruments, machine tools, common parts.

2 Environmental parameters

2.1 Classification of environmental parameters This standard environmental parameters are divided into five categories. K

- climate parameters B
- biological environmental parameters C
- chemically active substance parameters S
- mechanical parameters of the active substance M
- mechanical environmental parameters

2.2 determine the environmental parameters

2.2.1 product under actual environmental conditions are often complex, and a combination of a plurality of environmental parameters. To determine if a product application when ring When environmental conditions, should consider the following two points.

- a) lists of environmental parameters affecting the product;
- b) according to the actual situation, select the appropriate parameters for each severity.

2.2.2 The standard of environmental parameters given, it is to ensure that Common influential parameters are considered at the same time, the product application conditions The choice of environmental parameters, it must also consider the relationship between a combination of environmental parameters.

3 Individual environmental parameters severities

Level parameters listed in this standard refers to the degree of the product may be subject to harsh environmental parameters, has been given the parameters of severities, is fully It combines the nature of emerging environmental conditions and application of

environmental conditions in the relevant series of standard grade, in order to obtain the environmental conditions in the product description Consistency, standardization purposes. Severities of the criteria listed, including the surrounding medium (air, water, soil, water vapor, ice, oil, etc.) temperature, the product itself does not include hair Temperature of the hot section. Severities primarily associated with the defined environmental conditions, including but not related to the measurement, calibration and other conditions.

3.1 Climate parameters

3.1.1 Temperature (°C) -55, -50, -40, -35, -25, -20, -15, -10, -5, + 5, + 15, + 20, + 25, + 30, + 35, + 40, + 45, + 55, + 60, + 70, + 75, + 85, + 100, + 125, + 155, + 200

3.1.2 Temperature change Temperature changes include temperature shock, when the ambient temperature of the product to sudden changes, such as from outside the home, or when the product is exposed to the sun outdoors Light suddenly subjected to rain, water, water jet, the product that is subject to thermal shock. Temperature change rate. 0.1 °C/min, 0.5 °C/min, 1 °C/min, 3 °C/min, 5 °C/min, 1 °C/s, 5 °C/s