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

GB/T 38281.1-2019

**Indicator light units for household and similar fixed-electrical
installations -- Part 1: General requirements**

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Foreword

GB/T 38281 `` Indicator devices for household and similar fixed electrical installations " is divided into the following sections.

--- Part 1. General requirements;

--- Part 2. Special requirements.

This part is the first part of GB/T 38281.

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

This section uses the redrafting method to modify the use of IEC 62094-1..2002

Part 1. General requirements.

Compared with IEC 62094-1..2002, this part has structural changes.

* Added the title "Accessible parts" in 10.2, the suspension section at 10.2 was changed to 10.2.1, the original 10.2.1 was changed to 10.2.2, and the original 10.2.2

Changed to 10.2.3;

* 13.3 Added the first-level heading "Fixing requirements for covers, covers, and starting elements to ensure protection against electric shock." The 13.3 suspension section was changed to

13.3.1, former 13.3.1 changed to 13.3.2, former 13.3.2 changed to 13.3.3, former 13.3.3 changed to 13.3.4;

* The suspension section at 14.2 was changed to 14.2.1, the title "Overview" was added, the original 14.2.1 was changed to 14.2.2, and the suspension section in the clause was changed

For 14.2.2.1, add the title "General requirements". The original 14.2.1.1 is changed to 14.2.2.2, the original 14.2.1.2 is changed to 14.2.2.3, the original

14.2.2 changed to 14.2.3;

* The suspension section in Chapter 15 was changed to 15.1, the original 15.1 was changed to 15.2, and the original 15.2 was changed to 15.3;

* The suspension section in Chapter 17 was changed to 17.1, and the title "Overview" was added; the original 17.1 was changed to 17.2, and the title "Impact Test" was added.

17.2 was changed to 17.3, and the title "cylinder test" was added, the original 17.3 was changed to 17.4, and the title was "threaded gland", the original

17.4 was changed to 17.5, and the title "Indicator device with connecting line" was added. The original 17.5 was changed to 17.6, and the title was added.

"Removability or non-removability of cover, cover plate or starting element", the suspension section in this paragraph was changed to 17.6.1, the title "Overview" was added,

The original 17.5.1 was changed to 17.6.2, the original 17.5.2 was changed to 17.6.3, the original 17.6 was changed to 17.7, and the title "force requirements" was added; the original

17.7 was changed to 17.8, and the heading "10N Force" was added. The original 17.8 was changed to 17.9, and the heading "Cap or Cover Outline

Line inspection";

* The suspension section in Chapter 18 was changed to 18.1, the original 18.1 was changed to 18.2, the original 18.2 was changed to 18.3, and the original 18.3 was changed to 18.4.

The technical differences between this part and IEC 62094-1..2002 and their causes are as follows.

--- Regarding the normative reference documents, this section has made adjustments with technical differences to adapt to China's technical conditions and the situation of adjustment.

The situation is reflected in Chapter 2 "Regulatory Reference Documents", and the specific adjustments are as follows.

* Replaced IEC 60112 with GB/T 4207 equivalent to the international standard;

* Replaced IEC 60529 with GB/T 4208-2017 equivalent to the international standard;

* Replaced IEC 60695-2-10..2000 with GB/T 5169.10 equivalent to the international standard;

* Replaced IEC 60695-2-11..2000 with GB/T 5169.11 equivalent to the international standard;

* Replaced IEC 60212 with GB/T 10580 equivalent to the international standard;

* Replaced IEC 60998 (all parts) with GB/T 13140 (all parts) equivalent to the international standard;

* Replaced IEC 60061 (all parts) with GB/T 19148 (all parts) that adopted the international standard.

--- About the use of ambient temperature modification. Chapter 1 of IEC 60669-1..2007 provides.

Suitable for use in ambient temperatures that normally do not exceed 25 ° C, but occasionally reach 35 ° C. Considering the geographical position of our country

Location, actual natural climate and environmental temperature distribution, the south of the Yangtze River is located in the sub-humid tropical zone and the annual average temperature

And the highest temperature is higher and the humidity is greater. Therefore, the operating environment temperature is changed to. "The indicator device that meets the requirements of this section is suitable for

It is used in an environment that usually does not exceed 35 degrees C and occasionally reaches 40 degrees C. "

--- For additional testing of thermoplastic materials or elastic materials, 10.1 of IEC 62094-1..2002 stipulates. "The shell or cover is a thermoplastic material

The indicator device of plastic or elastic material shall also be subjected to the following additional tests. The test is carried out at an ambient temperature of 35 ° C +/- 2 ° C.

OK, the switch should also be at this temperature. Taking into account the harsh conditions of the use of ambient temperature in China and the use of ambient temperature in Chapter 1

It is stipulated that "35 ° C +/- 2 ° C" be changed to "(40 +/- 2) ° C" correspondingly.

--- Regarding the moisture-proof test, 14.3 of IEC 62094-1..2002 stipulates. "Any temperature of

Convenient value $t \pm 1K$. Before putting the sample in the humidity chamber, make the sample reach $t \sim t + 4$ degrees C. "Considering that parts of our country are wet

The tropical climate, and the electrical and electronic products in China all use (40 +/- 2) degrees C for humid heat test, so this section provides. "Test chamber

The temperature should be maintained at (40 +/- 2) degrees C. Allow the sample to reach this temperature before placing it in the humid chamber. "This provision is related to

GB/T 2423.3 "Environmental test Part 2. Test method Test Cab. Constant damp heat test" is consistent.

--- 12.2.1 According to the current situation of the product, change the conductor wiring capacity from "1mm² ~ 2.5mm²" to "0.5mm² ~

2.5mm²".

The following editorial changes have been made in this section.

--- According to the provisions of GB/T 1.1-2009, the "Scope" in Chapter 1 was supplemented by "this part of GB/T 38281 specifies household and

Technical requirements for the structure, electrical performance, and mechanical performance of indicator light devices of similar uses for fixed electrical installations. "

--- Removed notes containing requirements from other countries, such as 12.2.6, 13.23.2 notes.

This section is proposed by China Electrical Equipment Industry Association.

This section is under the jurisdiction of the National Electrical Accessories Standardization Technical Committee (SAC/TC67).

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1 Scope

This part of GB/T 38281 specifies the structure, electrical performance, and mechanical characteristics of indicator lamps for household and similar fixed electrical installations.

Mechanical performance and other technical requirements.

This section applies to a stand-alone indicator device intended to provide a visible signal. The device is designed for indoor or outdoor use in homes.

Use and similar fixed electrical devices, only for alternating current, rated voltage does not exceed 440V, rated power does not exceed 10W.

Note 1. The indicator devices within the scope of this section are not used as light sources for lighting [see GB 7000].