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

GB/T 32347.3-2015

**Railway applications -- Environmental conditions for equipment
-- Part 3: Equipment for signaling and telecommunications**

轨道交通 设备环境条件 第3部分：信号和通信设备

(English Translation)

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Foreword

GB/T 32347 "rail transportation equipment, environmental conditions," is divided into three parts.

- Part 1. rolling stock equipment;
- Part 2. ground electrical equipment;
- Part 3. Signal and communications equipment.

This section GB/T Part of 332,347.

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

This section uses redrafted law revision using IEC 62498-3:2010 "rail transportation equipment, environmental conditions - Part 3. Signal and communication device".

This part of IEC 62498-3:2010 compared to the existence of technical differences, these differences involve the provision of a single vertical line in the margin (-) Were marked. This part of IEC 62498-3:2010 compared to the existence of technical differences and their reasons are as follows.

--- Situation on normative references, this part of the technical differences have been adjusted in order to adapt to China's technical conditions, adjustment Focus reflected in Chapter 2, "Normative references" on. Specific adjustments are as follows.

- equivalents adoption of international standards GB 4208-2008 instead of IEC 60529. 1989 (see 4.6 and 4.11);

- Modify with international standards of GB/T 4797.1-2005 instead of IEC 60721-2-1. 1982 (see 4.3 and 4.4);

- Modify with international standards of GB/T 4797.2-2005 instead of IEC 60721-2-3. 1987 (see 4.2.1);
- Modify with international standards of GB/T 4797.3-2005 instead of IEC 60721-3-3:2002 (see 4.3 and 4.4);
- Modify with international standards of GB/T 4798.4-2007 instead of IEC 60721-3-4:1995 (see 4.4 and 4.11);
- equivalents adoption of international standards GB/T 24338.1 replaced by IEC 62236-1 (see 4.13);
- equivalents adoption of international standards GB/T 24338.2 replaced by IEC 62236-2 (see 4.13);
- equivalents adoption of international standards GB/T 24338.5 replaced by IEC 62236-4 (see 4.13);
- Modify with international standards of GB/T 32350.1 replaced by IEC 62497-1 (see 4.11);
- increase the GB/T 4798.5-2007 (see 4.6 and 4.9);
- increase the GB/T 11804-2005 (see Chapter 3);
- Remove the IEC 62497-2, converted by reference.
- Remove the Terms of environmental conditions, GB/T 11084-2005 has been defined (see IEC 62498-3:2010 3.1);
- Modify the elevation requirements to meet our traction device elevation requirements (see 4.2.1, IEC 62498-3. 4.2.1 2010's);
- Modify the temperature and humidity levels to adapt to conditions (see Table 2, Table 3, IEC 62498-3:2010, Table 2, Table 3);
- Modify the rainfall level (see 4.6, IEC 62498-3:2010 4.6);
- Increase the bioactive material needs to take into account the necessary termite protection (see 4.11);
- Remove the fire, the fire rating products defined in the specification does not belong to environmental conditions (see IEC 62498-3. 4.12 2010's).

This section also made the following editorial changes.

- Remove the IEC 62498-3:2010 in 4.12 "fire", and original 4.13 postponed following numbers;
- Remove the IEC 62498-3. Table A.2 2010's;
- Revised reference.

This part by the State Railway Administration.

This part of the National electric traction equipment and systems Standardization Technical Committee (SAC/TC278) centralized.

This part mainly drafted by. Zhuzhou CSR Times Electric Co., Ltd.

It participated in the drafting of this section. the Ministry of Railways Institute of Standards and metrology, China Academy of Railway Sciences Institute of Communications signal.

1 Scope

GB/T 32347 provisions of this part of the environmental conditions of rail signaling and communications equipment.

This section applies to the signal, the communication system equipment and mobile devices (including test, measurement and monitoring equipment, etc.) the design and use.

This section also provides for the following.

- Interface conditions between the device and the environment;
- Designer used in the calculation of parameters, including reliability, availability, maintainability and safety (RAMS) and the computing environment Computing device under the conditions of life.

The environmental conditions specified in this part apply to the use and maintenance of equipment, but does not include equipment which the micro-environment component (see micro-environment production Product standards).

This section does not consider the signaling and telecommunications apparatus (normal and fault condition) on system security. This section does not mention the designer Supply any information to determine the environmental conditions associated security risks. This section does not include the proximity signal and communications equipment in which the person or work Security, nor consider the destruction of man-made equipment.

This section applies to all signals and communications equipment, but not for cranes, mining vehicles and cable cars signaling and communications equipment. This section Car does not specify a signal and communications equipment environmental conditions (see the relevant requirements of GB/T 32347.1).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 4208-2008 housing protection (IP Code) (IEC 60529:2001, IDT) GB/T 4797.1-2005

electric and electronic products natural environmental conditions of temperature and humidity (IEC 60721-2-1:2002, MOD) GB/T 4797.2-2005 electric and electronic products natural environmental conditions - Part 2. Altitude and air pressure, water depth and water pressure (IEC 60721-2-3. 1987, MOD) GB/T 4798.3-2007 application of electric and electronic products environmental conditions - Part 3. Stationary use at weather protected locations (IEC 60721-3-3:2002, MOD) GB/T 4798.4-2007 application of electric and electronic products environmental conditions - Part 4. No fixed workplace climate protection use (IEC 60721-3-4:1995, MOD) GB/T 4798.5-2007 application of electric and electronic products environmental conditions - Part 5. Ground vehicle use (IEC 60721-3-5.

1997, MOD)

GB/T 11804-2005 electric and electronic products environmental conditions term GB/T 24338.1 rail Electromagnetic compatibility - Part 1. General (GB/T 24338.1-2009, IEC 62236-1.

2003, IDT)

GB/T 24338.2 rail Electromagnetic compatibility - Part 2. The entire rail system to the outside world emission (GB/T 24338.2-2011, IEC 62236-2:2003, IDT) GB/T 24338.5 rail Electromagnetic compatibility - Part 4. Emission and immunity of the signaling and telecommunications apparatus (GB/T 24338.5-2009, IEC 62236-4:2003, IDT)