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

MH/T 6010-2017

Replacing MH/T 6010-1999

**Constant current regulators
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces MH/T 6010-1999 "Constant Current Dimmer". Compared with MH/T 6010-1999, the main technical changes are as follows.

- Modified the classification method of dimmers (see Chapter 3, Chapter 3 of the 1999 edition);
- Modified the requirements for altitude and relative humidity in environmental conditions (see 4.1.1, 1999 edition 4.1.1);
- Modified the power supply conditions (see 4.1.2, 1999 edition 4.1.2);
- Modified load conditions (see 4.1.3, 1999 edition 4.1.3);
- Modified the constant current performance requirements (see 4.2.2, 1999 edition 4.2.2);
- Modified the technical requirements for efficiency and power factor, and added the technical requirements for crest factor (see 4.2.3, 1999 edition 4.2.3);
- Modified the technical requirements for electrical clearance and creepage distance (see 4.2.4, 1999 edition 4.2.4);
- Modified the technical requirements for insulation resistance (see 4.2.5, 1999 edition 4.2.5);
- Modified the technical requirements for electromagnetic interference (see 4.2.7, 1999 edition 4.2.7);
- Modified the control requirements (see 4.3, 1999 edition 4.3);
- Modified protective measures (see 4.5, 1999 version 4.5);
- Modified the technical requirements for grounding (see 4.6, 1999 edition 4.6);
- Modified the technical requirements of step-up transformers (see 4.7, 1999 edition 4.7);

- Modify the technical requirements of the cabinet, increase the enclosure protection level and enclosure temperature rise requirements (see 4.8, 1999 edition 4.8);
- Modified the monitoring requirements (see 4.9, 1999 edition 4.9);
- Deleted the requirements for components and printed boards (see 1999 edition 4.11);
- Added the requirements for optional accessories (see 4.12);
- Modified the visual inspection items in the test method (see 5.1, 1999 edition 5.1);
- Modified the constant current performance test (see 5.2, 1999 edition 5.4);
- Modified the efficiency and power factor test, and added the crest factor test items (see 5.3, 1999 edition 5.5);
- Modified the insulation test (see 5.2 and 5.3 in 5.4, 1999 edition);
- Modified the electromagnetic compatibility test (see 5.5, 1999 edition 5.8);
- Modified the protection circuit test (see 5.6, 1999 edition 5.6);
- Modified the step-up transformer test (see 5.8, 1999 edition 5.9);
- Increase the shell temperature rise test (see 5.9);
- Delete the voltage transformer and current transformer test (see 1999 edition 5.10);
- Added high temperature test (see 5.10);
- Modified the continuous operation test (see 5.11, 1999 edition 5.12);
- Modified low temperature test (see 5.12, 1999 edition 5.13);
- Deleted the lightning protection test (see 1999 version 5.10);
- Deleted the high and low temperature cycle test (see 1999 edition 5.14);
- Modified the damp heat test (see 5.13, 1999 edition 5.15);
- Deleted the vibration test (see 5.17 of the 1999 edition);
- Modified the drop impact test (see 5.14, 1999 edition 5.18);
- Deleted the low air pressure (altitude) test requirements (see 5.16 of 1999 edition);
- Deleted the transport test requirements (see 5.19 of the 1999 edition);
- Increased protection level inspection (see 5.15);
- Increase the clearance and creepage distance inspection (see 5.16);
- Added optional accessory test (see 5.17);
- Modified inspection rules (see Chapter 6, Chapter 6 of the 1999 edition);

- Modified the nameplate and accompanying documents requirements (see Chapter 7, Chapter 7 of the 1999 edition);
- Modified packaging, transportation and storage requirements (see Chapter 8, Chapter 8 of the 1999 edition);
- Added the correction coefficient of the dimmer technical index (see Appendix A).

The previous releases of this standard are. MH/T 6010-1999.

This standard was proposed and interpreted by the Airport Department of the Civil Aviation Administration of China.

This standard was approved by the Aircraft Airworthiness Certification Department of the Civil Aviation Administration of China.

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1 Scope

This standard specifies the classification, technical requirements, test methods, inspection rules, nameplates, accessories of constant current dimmers (hereinafter referred to as dimmers) Attach documents, packaging, transportation and storage.

This standard applies to dimmers used in the serial loop of airport navigation aid lights.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB 1094.11 Power Transformer Part 11: Dry-type Transformer GB/T 2423.4 Environmental testing of electrical and electronic products Part 2: Test method Test Db alternating damp heat (12h 12h cycle) GB/T 3797-2005 electrical control equipment GB/T 3859.1 General requirements for semiconductor converters and power grid commutated converters Part 1-1.Basic requirements specification GB 7251.1-2013 Low-voltage switchgear and control equipment Part 1: General GB/T 17626.7 Electromagnetic compatibility test and measurement technology Power supply system and connected equipment harmonics, interharmonic wave measurement and measurement instrument guide GB 17799.4 EMC general standard for emission in industrial environment JB/T 3085 Product Packaging and Transportation Regulations of Electric Drive Control Device