

ICS 33.100



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

GB/T 17626.8-2006

Replacing GB/T 17626.8-1998

**Electromagnetic compatibility (EMC) -- Part 4-8: Testing and
measurement techniques -- Power frequency magnetic field
immunity test**

电磁兼容 试验和测量技术 工频磁场抗扰度试验

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Foreword

GB/T 17626 Electromagnetic Compatibility - Testing and Measurement Techniques serial standards currently include the following parts:

GB/T 17626.1-2006 Electromagnetic Compatibility - Testing and Measurement Techniques - Overview of Immunity Tests

GB/T 17626.2-2006 Electromagnetic Compatibility (EMC) - Testing and Measurement Techniques - Electrostatic Discharge Immunity Test

GB/T 17626.3-2006 Electromagnetic Compatibility - Testing and Measurement Techniques - Radiated Radio-Frequency Electromagnetic Field Immunity Test

GB/T 17626.4-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Electrical Fast Transient/Burst Immunity Test

GB/T 17626.5-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Surge Immunity Test

GB/T 17626.6-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Immunity to Conducted Disturbances, Induced by Radio-Frequency Fields

GB/T 17626.7-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - General Guide on Harmonics and Inter-Harmonics Measurements and Instrumentation, for Power Supply Systems and Equipment Connected Thereto

GB/T 17626.8-2006 Electromagnetic Compatibility (EMC) - Part 8: Testing and Measurement Techniques - Power Frequency Magnetic Field Immunity Test

GB/T 17626.9-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Pulse Magnetic Field Immunity Test

GB/T 17626.10-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Damped Oscillatory Magnetic Field Immunity Test

GB/T 17626.11-1999 Electromagnetic Compatibility - Testing and Measurement Techniques - Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests

GB/T 17626.12-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Oscillatory Waves Immunity Test

GB/T 17626.13-2006 Electromagnetic Compatibility (EMC) - Testing and Measurement Techniques - Harmonics and Inter-Harmonics Including Mains Signalling at A.C. Power Port Low Frequency Immunity Test

GB/T 17626.14-2005 Electromagnetic Compatibility - Testing and Measurement Techniques - Voltage Fluctuation Immunity Test

GB/T 17626.17-2005 Electromagnetic Compatibility - Testing and Measurement Techniques - Ripple on D.C. Input Power Port Immunity Test

GB/T 17626.27-2006 Electromagnetic Compatibility (EMC) - Testing and Measurement Techniques - Unbalance Immunity Test

GB/T 17626.28-2006 Electromagnetic Compatibility (EMC) - Testing and Measurement Techniques - Variation of Power Frequency Immunity Test

GB/T 17626.29-2006 Electromagnetic Compatibility (EMC) - Testing and Measurement Techniques - Voltage Dips Short Interruptions and Voltage Variations on D.C. Input Power Port Immunity Tests

This Part is Part 8 of GBJ/T 17626.

This Part equivalently adopts IEC 61000-4-8:2001 Electromagnetic Compatibility - Part 4: Testing and Measurement Techniques - Part 8: Power Frequency Magnetic Field Immunity Test. This Part specifies the test levels and methods of the power frequency magnetic field immunity test of electrical and electronic equipment.

This Part replaced GB/T 17626.8-1998 Electromagnetic Compatibility - Testing and Measurement Techniques - Power Frequency Magnetic Field Immunity Test since the date of implementation.

Compared with GB/T 17626.8-1998, the major changes of this Part include that the Clause 9 Test Results and Test Report are divided into two clauses, namely, Clause 9 Evaluation of Test Results, and Clause 10 Test Report.

This Part has the normative Annexes A and B; and informative Annexes C and D.

1 Scope

This Part relates to the immunity requirements of equipment, only under operational conditions, to magnetic disturbances at power frequency related to:

- residential and commercial locations;
- industrial installations and power plants;
- medium voltage and high voltage sub-stations.

The applicability of this standard to equipment installed in different locations is determined by the presence of the phenomenon, as specified in clause 3.

This Part does not consider disturbances due to capacitive or inductive coupling in cables or other parts of the field installation. Other standards dealing with conducted disturbances cover these aspects.

The object of this Part is to establish a common and reproducible basis for evaluating the performance of electrical and electronic equipment for household, commercial and industrial applications when subjected to magnetic fields at power frequency (continuous and short duration field). The Part defines:

- recommended test levels;
- test equipment;
- test set-up;
- test procedure. Other kinds of magnetic fields shall be object of standardization:
 - fields at other power frequencies (16 2/3 Hz ~ 20 Hz or 30 Hz ~ 400 Hz);
 - fields of harmonic currents (100 Hz ~ 2 000 Hz);