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**Automatic Guided Vehicles—General Specifications**  
**自动导引车 通用技术条件**

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# CONTENTS

Foreword .....	IV
1 Scope .....	1
2 Normative References .....	1
3 Terms and Definitions .....	1
4 Product Classification.....	2
4.1 Classification by Navigation Mode .....	2
4.2 Classification by Drive Mode.....	2
4.3 Classification by Drive Structure .....	2
4.4 Classification by Loading Mode .....	2
5 System Composition .....	3
6 Technical Requirements .....	3
6.1 Appearance and Structure Requirements .....	3
6.2 Interface Requirements.....	4
6.3 Functional Requirements.....	4
6.4 Performance Requirements.....	9
6.5 Power Adaptability Requirements .....	9
6.6 Electromagnetic Compatibility Requirements .....	9
6.7 Environment Adaptability Requirements .....	10
6.8 Security Requirements.....	11
6.9 Reliability Requirements .....	11
7 Test Methods .....	11
7.1 Test Conditions.....	11
7.2 Appearance and Structure Test .....	12
7.3 Interface Test .....	12
7.4 Function Test .....	12
7.5 Performance Test .....	15
7.6 Power Adaptability Test .....	16
7.7 Electromagnetic Compatibility Test.....	16
7.8 Environment Adaptability Test .....	16
7.9 Security Test.....	18
8 Inspection Rules .....	18
8.1 Inspection Classification .....	18
8.2 Type Inspection .....	18
8.3 Delivery Inspection.....	19
9 Marking, Packaging, Transportation and Storage .....	19
9.1 Marking.....	19
9.2 Packaging.....	19
9.3 Transportation.....	20
9.4 Storage .....	20
Annex A (Normative) Loading System .....	21
Annex B (Normative) Application Security.....	22
Annex C (Normative) Ground Conditions and Hazardous Areas.....	23
Bibliography .....	24

# Automatic Guided Vehicles—General Specifications

## 1 Scope

This document specifies the product classification, technical requirements, test methods, inspection rules, and marking, packaging, transportation and storage of the automatic guided vehicles.

This document is applicable to the design, manufacture and inspection of automatic guided vehicles in such fields as warehousing, production lines, transportation and manufacturing industry.

## 2 Normative References

The following documents contain provisions which, through reference in this text, constitute essential provisions of this document. For dated references, only the editions cited apply. For undated references, the latest editions of the normative document (including any amendments) apply.

GB/T 191	Packaging - Pictorial Marking for Handling of Goods
GB/T 2423.55	Environmental testing for electric and electronic products - Part 2: Test methods - Test Eh: hammer tests
GB/T 4208	Degrees of protection provided by enclosure (IP code)
GB/T 5226.1-2019	Electrical safety of machinery—Electrical equipment of machines—Part 1: General requirements
GB/T 10827.1-2014	Industrial trucks—Safety requirements and verification—Part 1: Self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks
GB/T 15706	Safety of machinery — General principles for design - Risk assessment and risk reduction
GB/T 16855.1	Safety of machinery-Safety-related parts of control systems-Part 1: General principles for design
GB/T 17626.2	Electromagnetic compatibility—Testing and measurement techniques — Electrostatic discharge immunity test
GB/T 17626.3	Electromagnetic compatibility- Testing and measurement techniques- Radiated, radio-frequency, electromagnetic field immunity test
GB/T 17626.4	Electromagnetic compatibility—Testing and measurement techniques—Electrical fast transient/burst immunity test
GB/T 17626.5	Electromagnetic compatibility—Testing and measurement techniques—Surge immunity test
GB/T 17626.6	Electromagnetic compatibility—Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields
GB/T 17626.8	Electromagnetic compatibility (EMC) - Part 8: Testing and measurement techniques - Power frequency magnetic field immunity test
GB/T 17626.11	Electromagnetic compatibility--Testing and measurement techniques--Voltage dips, short interruptions and voltage variations immunity tests
GB/T 17799.2	Electromagnetic compatibility--Generic standards--Immunity for industrial environments
GB/T 17799.4	Electromagnetic compatibility (EMC)—Generic standards—Emission standard for industrial environments
GB/T 18849	Powered industrial trucks—Brake performance and component strength
GB/T 20138	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
GB/T 26154-2010	General specifications of assembly robots
GB/T 27544-2011	Industrial trucks - Electrical requirements
GB/T 27693	Safety of industrial trucks - Test methods for measuring noise emissions

## 3 Terms and Definitions

For the purpose of this document, the terms and definitions given in GB/T 5226.1-2019 and the following apply.

3.1

Automatic guided vehicle (AGV)

an autonomous mobile equipment which can transport or handle materials, is characterized by wheeled movement, and moves along the preset route based on environment markers or external guidance signals

3.2

Running mode

a mode in which a sole AGV executes the movement command

Note: it includes manual mode, automatic mode and offline automatic mode, etc.

3.3

Navigation mode

a mode in which the AGV runs automatically within a designated operation area

3.4

Loading mode

The goods carriage/exchange mode provided by the AGV to meet the need of goods transportation

3.5

Rated load

The permissible maximum load for the AGV to ensure the nominal performance parameters under normal operating conditions

3.6

Rated speed

The maximum nominal speed at which the AGV can operate steadily for a long time under the rated load

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