

ICS 45.060
CCS S 33



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

GB/T 44853-2024

Urban rail transit vehicles-Electro-pneumatic brake system

城市轨道交通车辆 电空制动系统

Issued on: October 26, 2024

Implemented on: May 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Preface... III 1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Operating environment conditions	4
5 Technical Requirements	4
6 Test Methods	7
7 Inspection Rules	13
8 Marking, packaging, transportation and storage	14
References	15

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed by the Ministry of Housing and Urban-Rural Development of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee for Standardization of Urban Rail Transit (SAC/TC 290).

This document was drafted by: CRRC Qingdao Sifang Rolling Stock Research Institute Co., Ltd., CRRC Corporation Limited, CRRC Qingdao Sifang Locomotive CRRC Changchun Railway Vehicles Co., Ltd., CRRC Zhuzhou Electric Locomotive Co., Ltd., CRRC Braking System Co., Ltd.

Company, Beijing Zongheng Electromechanical Technology Co., Ltd., Tongji University, Southwest Jiaotong University, Beijing Subway Operation Co., Ltd., Guangzhou Metro Group Group Co., Ltd., Shenzhen Metro Construction Group Co., Ltd., Chengdu Rail Transit Group Co., Ltd., China Academy of Railway Sciences Group Co., Ltd.

The company's Locomotive and Rolling Stock Research Institute, China Railway Inspection and Certification (Qingdao) Vehicle Inspection Station Co., Ltd., and Knorr-Bremse Rolling Stock Equipment (Suzhou) Co., Ltd.

The main drafters of this document are: Li Peishu, Feng Yong, Zhu Jianchun, Wang Yuquan, Yan Lei, Shi Zhewen, An Zhen, Wang Linmei, Wang Zheng, Wang Xiaodong, Meng Fanhui, Ren Depeng, Yang Jun, Fan Guixin, Tian Chun, Wang Junyong, Li Li, Long Jing, Liang Jinfa, Chen Ying, Yang Xin, Sun Feng, and Zhao Jianfei.

Electro-pneumatic braking system for urban rail transit vehicles

1 Scope

This document specifies the operating environment conditions, technical requirements, test methods, inspection rules, Marking, packaging, transportation and storage.

This document is applicable to the electric-pneumatic braking systems used in subways and urban rapid rail vehicles.

2 Normative references

GB/T 4208-2017

GB/T 21562.2-2015

ISO 2151

ISO 3744

ISO 8573

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 pneumatic brake; air brake

A braking method that is controlled by compressed air and uses compressed air as the motive force to generate brake shoe or brake pad pressure.

3.2 Electro-pneumatic brake system; EP brake system

Electrically controlled air brake system.

Note. It is divided into vehicle control braking system and frame control braking system.

3.3 Service brake

Braking that regulates the train's speed or stops the train at a predetermined location.

[Source. GB/T 4549.3-2004, 2.7]