

ICS 29.280
CCS S 81



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

GB/T 28428-2012

**27.5kV and 2??27.5kV AC metal-enclosed switchgear and
controlgear for electrification railway
(English Translation)**

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: Standardization Administration of China

Table of Contents

Introduction

1 Scope

2 Normative references

3 Terms and definitions

Conditions 4

4.1 Normal conditions of use

4.2 Special conditions

8 5 Rating

5.1 Rated voltage (U_r) and the maximum operating voltage (U_{max})

5.2 Rated insulation level

5.3 Rated frequency (f_r)

5.4 Rated current and temperature rise

5.5 Rated short time withstand current (I_k)

5.6 Rated peak withstand current (I_p)

5.7 Rated short duration (t_k)

5.8 Closing and opening devices and auxiliary control circuit rated supply voltage (U_a)

5.9 Closing and opening devices and auxiliary circuits Rated supply frequency

5.10 Rated inflation pressure

6 Design and construction

6.1 General provisions

Requirements 6.2 pairs of switching and control equipment, gas

6.3 Ground

6.4 Auxiliary and control equipment

6.5 Operated by power

6.6 Charging operation

6.7 Does not rely on human action

6.8 Release operation

6.9 Nameplate

6.10 Interlock device

Foreword

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

The standard proposed by the People's Republic of China Ministry of Railways.

The standard China Railway Electrification Bureau Group Co., Ltd. under the jurisdiction.

1 Scope

This standard specifies the electrified railway 27.5kV and 2 x 27.5kV AC metal-enclosed switchgear and control equipment, conditions of use Member, rating, design and construction, type testing, factory testing, inspection rules, transportation, storage, installation, operation and maintenance rules, safety Claim.

This standard applies to the inner insulation and having an air inflatable compartments, the design pressure does not exceed 0.3MPa (relative pressure) indoor metal seal Off switch and control equipment.

Mounted on the metal-enclosed switchgear and control equipment of each element be designed and tested in accordance with the respective standards.

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/T 311.2-2002 Insulation coordination - Part 2. insulated high voltage transmission and distribution equipment use guidelines GB/T 1408.1-2006 electrical insulating materials strength test methods - Part 1. Tests at power frequencies (IEC 60243-1:1998, IDT) GB 1985-2004 high-voltage AC disconnectors and earthing switches (IEC 62271-102:2002, MOD) GB/T 2900.1-2008 Electrical Basic terminology GB/T 2900.20-1994 Electrotechnical terminology voltage switchgear [neq IEC 60050 (IEV). 1984] GB 3906-2006 3.6kV ~ 40.5kV AC metal-enclosed switchgear and control equipment (IEC 62271-200:2003, MOD) GB 4208-2008 housing protection (IP Code) (IEC 60529:2001, IDT) GB/T 4728.1-2005 Graphical symbols for diagrams - Part 1. General requirements (IEC 60617 database, IDT) GB/T 11021-2007 heat resistance, electrical insulation rating (IEC 60085.2004 IDT) GB/T 11022-2011 high-voltage switchgear and control equipment standard common technical requirements (IEC 62271-1.2007 MOD) GB/T 12022-2006 industrial sulfur hexafluoride (IEC 376. 1971; IEC 376A. 1973; IEC 376B. 1974, MOD) GB/T 16927.1-2011 high voltage test techniques - Part 1. General definitions and test requirements (IEC 60060-1:2006, MOD) GB/T 16935.1-2008 within low-voltage systems Insulation coordination for equipment - Part 1. Principles, requirements and tests GB 17627.1-1998 part of high-voltage test techniques

for low voltage equipment. definitions and test requirements (eqv IEC 1180-1:1992) IEC
60073:2002 people - computer interface, marking and identification with the basic principles
and safety principles as well as the pointing device and controller code Principle
(Basicandsafetyprinciplesforman-machineinterface,
markingandidentification-Codingprinci-plesforindicatorsandactuators) IEC 62271-1:2007
high-voltage switchgear and control equipment standard common technical requirements
(High-voltageswitchgearand