



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

GB/T 11022-2020

**Common specifications for high-voltage alternating-current
switchgear and controlgear standards**

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Table of Contents

Foreword...	5
1 Scope...	13
2 Normative references...	13
3 Terms and definitions...	17
4 Normal and special service conditions...	34
4.1 Normal service conditions...	34
4.2 Special service conditions...	36
5 Ratings...	38
5.1 General...	38
5.2 Rated voltage (U_r)...	39
5.3 Rated insulation level (U_d , U_p , U_s)...	39
5.4 Rated frequency (f_r)...	42
5.5 Rated continuous current (I_r)...	42
5.6 Rated short-time withstand current (I_k)...	43
5.7 Rated peak withstand current (I_p)...	43
5.8 Rated duration of short-circuit (t_k)...	44
5.9 Rated supply voltage of auxiliary and control circuits (U_a)...	44
5.10 Rated frequency of supply voltage of auxiliary and control circuits...	44
5.11 Rated pressure of compressed gas supply for controlled pressure systems...	44
5.12 Rated charging pressure/level for insulation and/or switching...	45
6 Design and construction...	45
6.1 Requirements for liquids in switchgear and controlgear...	45
6.2 Requirements for gases in switchgear and controlgear...	45
6.3 Earthing of switchgear and controlgear...	45
6.4 Auxiliary and control equipment and circuits...	46
6.5 Dependent power operation...	50
6.6 Stored energy operation...	50
6.7 Independent unlatched operation (independent manual or power operation)...	52
6.8 Manually operated actuators...	52
6.9 Operation of releases...	53
6.10 Pressure/level indication...	54
6.11 Nameplates...	54

6.12 Locking devices...	56
6.13 Position indication...	57
6.14 Degrees of protection provided by enclosures...	57
6.15 Creepage distances for outdoor insulators...	58
6.16 Gas and vacuum tightness...	58
6.17 Tightness for liquid...	59
6.18 Fire hazard (flammability)...	60
6.19 Electromagnetic compatibility (EMC)...	60
6.20 X-ray emission...	60
6.21 Corrosion...	60
6.22 Filling pressure/levels for insulation and/or switching and operation...	61
7 Type tests...	61
7.1 General...	61
7.2 Dielectric tests...	63
7.3 Radio interference voltage (RIV) test...	73
7.4 Resistance measurement of circuits...	73
7.5 Continuous current tests...	75
7.6 Short-time withstand current and peak withstand current tests...	83
7.7 Verification of the degree of protection...	86
7.8 Tightness tests...	87
7.9 Electromagnetic compatibility tests (EMC)...	90
7.10 Additional tests on auxiliary and control circuits...	96
7.11 X-radiation test for vacuum interrupters...	99
8 Routine tests...	102
8.1 General...	102
8.2 Dielectric test on the main circuit...	102
8.3 Tests on auxiliary and control circuits...	103
8.4 Measurement of the resistance of the main circuit...	104
8.5 Tightness test...	104
8.6 Design and visual checks...	105
9 Guide to the selection of switchgear and controlgear...	105
9.1 General...	105
9.2 Selection of rated values...	106
9.3 Cable-interface considerations...	106
9.4 Continuous and temporary overload due to changed service conditions...	106

9.5 Environmental aspects...	106
10 Information to be given with enquiries, tenders and orders...	107
10.1 General...	107
10.2 Information with enquiries and orders...	108
10.3 Information with tenders...	109
11 Transport, storage, installation, operating and maintenance instructions...	110
11.1 General...	110
11.2 Conditions during transport, storage and installation...	110
11.3 Installation...	111
11.4 Operation...	114
11.5 Maintenance...	114
12 Safety...	120
12.1 General...	120
12.2 Precautions by manufacturers...	120
12.3 Precautions by users...	121
13 Influence of the product on the environment...	122

Foreword

This Standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 11022-2011 "Common specifications for high-voltage switchgear and controlgear standards". Compared with GB/T 11022-2011, the main technical changes are as follows.

- Revise the previous Clause 1 "Overview" to Clause 1 "Scope" and Clause 2 "Normative references"; revise the "Scope" (see Clause 1 and Clause 2; Clause 1 of the 2011 edition);
- Add the terms "Internal insulation", "Site pollution severity (SPS) class", "Highest voltage for equipment", "Supply voltage (of auxiliary and control circuits)" and "Thermal time constant" (see Clause 3);
- Adjust "Normal and special service conditions" to Clause 4 (see Clause 4; Clause

2 of the 2011 edition);

- Revise the ambient air temperature range in "Normal service conditions" (see 4.1;

2.2 of the 2011 edition);

- Delete the previous Figure 1 "Altitude correction factor" and the calculation formula (see 2.3.2 of the 2011 edition);
- Add pollution requirements and ambient air temperature range for indoor applications under "Special service conditions" (see 4.2.3 and 4.2.4);
- Revise the wind speed requirements of "Special service conditions"; delete the requirements for ice coating (see 4.2.6; 2.3.6 and 2.3.7 of the 2011 edition);
- Add the description of ratings (see 5.1);
- Add the rated voltage class and rated insulation level applicable to the switchgear of alternator system; add the calculation method of additional voltage in the column (3) and column (5) in Table 1 (see 5.2 and 5.3);
- Modify the insulation level of rated voltage range II (see 5.3; 4.3 of the 2011 edition);
- Change the previous "Rated current" to "Rated continuous current" (see 5.5; 4.5 of the 2011 edition);
- Add the peak factor of rated peak withstand current at different time constants and rated frequencies (see 5.7);
- Add the rated short-circuit duration of 1 s; delete the previous requirements for 4 s (see 5.8; 4.8 of the 2011 edition);
- Revise the "closing and opening devices and auxiliary and control circuits" in the previous subclause title TO "auxiliary and control circuits"; revise the corresponding content (see 5.9 and 5.10; 4.9 and 4.10 of the 2011 edition);
- Delete the previous requirements for "tolerance", "ripple voltage", "voltage dip and interruption" in rated voltage (see 4.9.3, 4.9.4, and 4.9.5 of the 2011 edition);
- Delete the requirement that the diameter of fastening screws and bolts shall not be less than 12 mm in "Earthing of switchgear and controlgear" (see 5.3 of the 2011 edition);
- Add the normal operation of electrical circuits (see 6.4.1);