Chinastandards.org

ICS 17.100

JJF

NATIONAL METROLOGY TECHNICAL SPECIFICATION OF THE PEOPLE'S REPUBLIC OF CHINA

JJF 1782-2019

Program of Pattern Evaluation of Pressure Type SF6 Gas Density Monitors

压力式六氟化硫气体密度控制器型式评价大纲

(English Translation)

Implemented on: March 31, 2020

Issued by: State Administration for Market Regulation

Preview: page 1 of 5 shown, 23 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/jjf-1782-2019

Chinastandards.org

Table of Contents

Introduction (IV)
1 Scope (1)
2 References (1)
3 Terminology (1)
3.1 Rated pressure (1)
3.2 Alarm pressure (1)
3.3 Locking pressure (1)
3.4 Overpressure alarm pressure (2)
3.5 Set point deviation (2)
3.6 Switching difference (2)
3.7 Static pressure test (2)
4 Overview (2)
5 Legal management requirements (2)
5.1 Unit of measurement (2)
5.2 External structure (2)
5.3 Logo (2)
5.4 Provide technical documents for review (3)
6 Measurement requirements (3)
6.1 Indicating device (3)
6.2 Accuracy class (3)
6.3 Zero error (3)
6.4 Indication error (3)
6.5 Return error (3)
6.6 Error of rated pressure (3)
6.7 Tap Displacement (3)
6.8 Pointer deflection stability (3)
6.9 Tightness (3)
6.10 Set point deviation and switching difference (4)
6.11 Temperature compensation (4)
7 General technical requirements (5)
7.1 Appearance and structure (5)
7.2 Static pressure test (5)

Preview: page 2 of 5 shown, 23 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/jjf-1782-2019

Chinastandards.org

7.3 Alternating pressure (5)
7.4 Temperature cycle test (5)
7.5 Insulation resistance (5)
7.6 Dielectric strength (5)
7.7 Enclosure protection (6)
7.8 Lightning impulse test (6)
7.9 Contact breaking function of electrical signal device (6)
7.10 Vibration resistance to working environment (6)
8 Type evaluation item table (6)
9 Provide the number of prototypes and how to use them (7)
9.1 Number of prototypes provided (7)
9.2 How to use the prototype (7)
10 Test methods and conditions, test data processing and acceptance criteria (7)
10.1 Environmental conditions (7)
10.2 Working medium (8)
10.3 Test points (8)
10.4 Test sequence (8)
10.5 Indication device (8)
10.6 Accuracy class (8)
10.7 Zero error (8)
10.8 Indication error (8)
10.9 Return error (9)
10.10 Error of rated pressure (9)
10.11 Tap Displacement (9)
10.12 Stability of pointer deflection (9)
10.13 Sealability (9)
10.14 Setpoint deviation and switching difference (10)
10.15 Temperature compensation (10)
10.16 Appearance and Structure (11)
10.17 Static pressure test (11)
10.18 Alternating pressure (11)
10.19 Temperature cycle test (11)
10.20 Insulation resistance (12)
10.21 Dielectric strength (12)
10.22 Enclosure protection (12)

Preview: page 3 of 5 shown, 23 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/jjf-1782-2019

10.23 Lightning impulse test (12)
10.24 Contact making and breaking function of electrical signal devices (12)
10.25 Vibration resistance to working environment (13)
11 Table of measuring instruments and equipment used in the test project
12 Judgment principles of type evaluation results (14)
Appendix A Test sequence and intermittent time between items (15)
Appendix B Type Evaluation Record Format (16)

12 Judgment principles of type evaluation results (14)

Appendix A Test sequence and intermittent time between items (15)

Appendix B Type Evaluation Record Format (16)

Introduction

JJF 1001 "General Measurement Terms and Definitions", JJF 1059 "Measurement Uncertainty Evaluation and Representation" the basic series of specifications formulated in this outline.

The requirements and methods of the test items in this outline refer to JJG1073-2011 "Pressure Type SF6 Gas Density the content of "Controller" and GB/T 22065-2008 "Pressure Type SF6 Gas Density Controller" requires it can objectively, comprehensively and effectively evaluate the performance of the pressure type sulfur hexafluoride gas density controller.

The structure of this outline is arranged in accordance with JJF 1016-2014 "Guidelines for the Compilation of Outlines for Measuring Apparatus Type Evaluation".

Each chapter is prepared in accordance with the provisions of JJF 1015-2014 "General Specification for Type Evaluation of Measuring Instruments".

This outline is published for the first time.

Pressure type SF6 gas density Controller type evaluation outline

1 Scope

This outline applies to the classification code of measuring instruments is 12320000, with spring tube or bellows as the measuring element, measuring the volume range is (-0.1 ~ 0.9) MPa or (-0.1 ~ 0.5) MPa, the nominal diameter of the instrument shell is 100mm, the pressure type sulfur hexafluoride (SF6) gas density controller (or gas density relay) whose working medium is sulfur hexafluoride gas Type evaluation of electrical appliances, gas density monitors, hereinafter referred to as "controller").

Preview: page 4 of 5 shown, 23 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/jjf-1782-2019

2 Reference documents the outline refers to the following documents.

JJG1073-2011 Pressure type sulfur hexafluoride gas density controller GB/T 2423.10 Environmental testing for electrical and electronic products Part 2: Test methods Test Fc. Vibration (Sine) GB/T 4208 enclosure protection level (IP code) GB/T 11287 Electrical relays Part 21: Vibration, shock, impact of measuring relays and protection devices Impact and earthquake test part 1.vibration test (sine) GB/T 14598.3-2006 Electrical relays Part 5: Insulation configuration of measuring relays and protection devices Meet the requirements and test GB/T 15823 Non-destructive testing helium leak detection method GB/T 22065-2008 Pressure type sulfur hexafluoride gas density controller JB/T 5528-2005 Pressure gauge scale and division JB/T 9252-1999 The basic type, size and pointer General technical requirements for dated reference documents, only the dated version applies to this outline; for those without date references the latest version (including all amendments) is applicable to this outline.

3 Terminology

3.1 Rated pressure ratingpressure Under standard atmospheric pressure conditions, before the equipment is put into operation or when supplementing gas, fill the equipment gas chamber with SF6 as required the pressure of the gas. [JJG1073-2011 Terms and Definitions 3.1]

3.2 Alarm pressure

When the pressure of SF6 gas in the equipment gas chamber drops to a certain set value, the controller will send out an alarm signal.

The set value is called the alarm pressure.

Note: Rewritten from JJG1073-2011 Terms and Definitions 3.2.

3.3 Locking pressure atresiapressure when the pressure of SF6 gas in the equipment gas chamber drops to a certain set value, the controller will send a blocking signal.

The fixed value is called blocking pressure.

Preview: page 5 of 5 shown, 23 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/jjf-1782-2019