

ICS 13.220.10

CCS C 83



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

GB 47485-2026

Hanging gas fire extinguishing equipment

悬挂式气体灭火装置

Issued on: April 30, 2026

Implemented on: May 1, 2027

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

Table of Contents

5 Requirements

5.1 Fire extinguishing equipment

5.1.2 Appearance

5.1.4 Requirements for extinguishing agents and pressurized gases

5.1.5 Startup Method

5.1.10 Requirements for Localized Fire Extinguishing Applications

5.2 Container

5.3 Container Valves

5.5 Temperature-sensing release component

5.5.1 Appearance and Markings

5.6 Initiator

5.6.1 Electrical Initiator

5.6.2 Thermal Initiator

5.7 Leak Detection Device

5.9 Signal Feedback Device

5.10 Drive Unit

5.11 Suspension bracket (base)

6 Test Methods

6.4 Insulation Resistance Measurement

6.5 Vibration Test Conduct the test according to the method specified in

6.6 Temperature Cycling Test Conduct the test according to the method specified in

6.7 Concentration Distribution Test

6.7.4 Test Instruments and Their Layout

6.8 Fire Extinguishing Test of Localized Fire Extinguishing Devices

6.8.5 Test

6.12 Initiator Performance Test

6.12.1 Basic performance test of electric initiator

5.1 Fire extinguishing equipment

5.1.1 Composition Heat-sensitive fire extinguishing devices and heat-activated fire extinguishing devices should consist of an extinguishing agent storage container, an extinguishing agent sampling port, a heat-sensitive release component, and a leak

detection system. It consists of a device, a signal feedback device (where applicable), an initiator (where applicable), etc. An electrically activated fire extinguishing device should consist of an extinguishing agent storage container, an extinguishing agent sampling port, a container valve, a leak detection device, and a signal feedback device (where applicable). It consists of nozzles, drive devices, etc.

5.1.2 Appearance

5.1.2.1 All components of the fire extinguishing device shall be free from any visible manufacturing defects or mechanical damage, and the outer surfaces of components treated with anti-corrosion measures shall be protected against corrosion. The coating and plating should be complete and uniform.

5.1.2.2 The nameplate shall be securely installed in a conspicuous location on the fire extinguishing device, and the content of the nameplate shall comply with the requirements of Chapter 8.

5.1.2.3 The warning sign for the fire extinguishing device shall be securely installed in a conspicuous location on the device. The warning sign shall state. "This device will decompose and produce [products] when used for fire extinguishing." "Produces a certain amount of hydrogen fluoride gas" The warning sign should be clearly readable at a distance of 3 meters under ambient light of 100lx to 500lx.

5.1.3 Main parameters of fire extinguishing equipment The main parameters of the fire extinguishing device shall comply with the provisions of Table 4.

5.1.4 Requirements for extinguishing agents and pressurized gases

5.1.4.1 Heptafluoropropane fire extinguishing agent shall comply with the provisions of GB 18614.

5.1.4.2 Hexafluoropropane fire extinguishing agent shall comply with the provisions of GB 25971.

5.1.4.3 The pressurized gas shall comply with the requirements of GB/T 8979.

5.1.5 Startup Method

5.1.5.1 Fire extinguishing devices should be equipped with an automatic start-up mode, and manual and mechanical emergency start-up modes may also be added.

5.1.5.2 The operating force of the mechanical emergency operating mechanism should not exceed 150N; the pulling operating force should not exceed 50N; and the pushing operating force should not exceed [missing value]. 10N; the operating stroke should not exceed 300mm. The release force of the safety device for mechanical emergency start-up should not exceed 100N.

5.1.6 Insulation Requirements Under normal atmospheric conditions, the insulation resistance between the external live terminals of the fire extinguishing device and the device itself should be greater than 20 MΩ. The insulation resistance between the power plug and the device should be greater than 50 MΩ.

5.1.7 Vibration Resistance Requirements Vibration tests should be conducted according to the method specified in 6.5. No component of the fire extinguishing device should show signs of loosening, detachment, or structural damage. The extinguishing agent... The net weight loss should not exceed 0.5% of the extinguishing agent filling volume, and the pressure loss should not exceed 1% of the filling pressure. Automatic or manual activation should be performed after the test. The automatic fire extinguishing system should not malfunction.

5.1.8 Temperature Cycling Leakage Requirements When conducting a temperature cycling leak test as specified in 6.6, the net weight loss of the extinguishing agent in the extinguishing device should not exceed the filling weight of the extinguishing agent. The pressure loss should not exceed 1.5% of the filling pressure, and the fire extinguishing device should be automatically or manually activated after the test without any malfunction.

5.1.9 Concentration Distribution Performance The concentration distribution test shall be conducted according to the method specified in 6.7, and the fire shall be extinguished within 30 seconds after the discharge is completed.

5.1.10 Requirements for Localized Fire Extinguishing Applications

5.1.10.1 Requirements for localized Class B fire extinguishing When conducting a Class B fire extinguishing test according to the method specified in 6.8, the extinguishing device should extinguish the fire after the spraying is completed, and the fire in the oil pan should not splash. Oil discharge tray.

5.1.10.2 Requirements for localized Class A fire extinguishing The fire extinguishing test for Class A fires shall be conducted according to the method specified in 6.8. The fire extinguishing device shall extinguish the open flame after spraying and shall not reignite within 10 minutes.

5.2 Container

5.2.1 Nominal working pressure The nominal working pressure of the container should not be less than the maximum working pressure of the fire extinguishing device specified in Table 4.

5.2.2 Other performance Other performance characteristics of the container shall comply with the provisions of 5.1.1.1, 5.3.14.1,

5.3.14.4 in GB 25972-2024.

5.3 Container Valves

5.3.1 Nominal Working Pressure The nominal working pressure of the container valve should not be less than the maximum working pressure of the fire extinguishing device specified in Table 4.

5.3.2 Other performance Other performance characteristics of the container valve shall comply with 5.1.1.2, 5.3.15.2~5.3.15.5, and 5.3.15.7~

5.3.15.11 of GB 25972-2024. Regulation.

5.4 Safety relief device Fire extinguishing systems should be equipped with safety relief devices, which should comply with provisions

5.3.17.3 of GB 25972-2024. The provisions of 5.3.17.5. The operating pressure setting of the safety relief device should be no less than

1.25 times the maximum working pressure of the fire extinguishing device, but no greater than its strength test pressure. 95% of the force. The operating pressure range of the safety relief device is the set value $\times (1 \pm 5\%)$.

5.5.1 Appearance and Markings

5.5.1.1 When a fire extinguishing device uses a glass bulb or fusible element as the temperature sensing element, the nominal operating temperature and color marking of the temperature-sensing release assembly shall be specified. It should comply with the provisions of GB 5135.1-2019.

5.5.1.2 The manufacturer or trademark, model and specifications, and working pressure shall be permanently marked in a conspicuous location on the temperature-sensing release component.

5.5.2 Static operating temperature Perform the static operating temperature test according to the method specified in 6.11. The static operating temperature of the temperature-sensing release component shall comply with GB 5135.1- The provisions of

5.5.3 Strength Requirements The temperature-sensing release component should be subjected to a water pressure strength test according to the method specified in 6.11, and no leakage should occur. The test pressure is

1.5 times the maximum working pressure, and the pressure is maintained for 5 minutes.

5.5.4 Sealing Requirements Perform an airtightness test according to the method specified in 6.11, and there should be no air bubbles leaking from any of the connection and sealing parts. The test pressure is the maximum working pressure, and the pressure is maintained for 5 minutes.

5.5.5 Heat and pressure resistance requirements Perform heat and pressure resistance