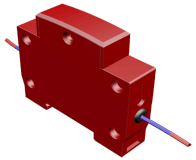
Consumer Unit Fire Extinguishing Device



The key Amendment 3 of BS 7671 introduced the requirement for consumer units in domestic premises to have non-combustible enclosures (typically metal).

A plastic consumer unit does not automatically attract a C3 observation on an Electrical Installation Condition Report (EICR). Under current guidance within BSI Group IET guidance documents and the requirements of BS 7671, the coding depends on several factors:

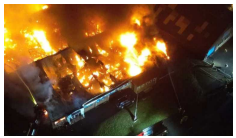
- the location of the consumer unit
- evidence of thermal damage or poor workmanship
- overall fire risk assessment by the inspector

In practice:

- **Older plastic consumer units installed correctly and in good condition** are often recorded as:
  - no code, or
  - C3 (“improvement recommended”) where the inspector considers a metal enclosure would enhance fire containment.
- A **plastic consumer unit under a wooden staircase, escape route, or high-risk area** is more likely to attract a C3 recommendation because modern metal enclosures provide improved fire resistance.
- If there are additional defects such as:
  - overheating,
  - combustible backing,
  - no RCD protection where required,
  - signs of arcing or damage

then the observation could escalate to:

- C2 (“potentially dangerous”), or
- FI (“further investigation”).



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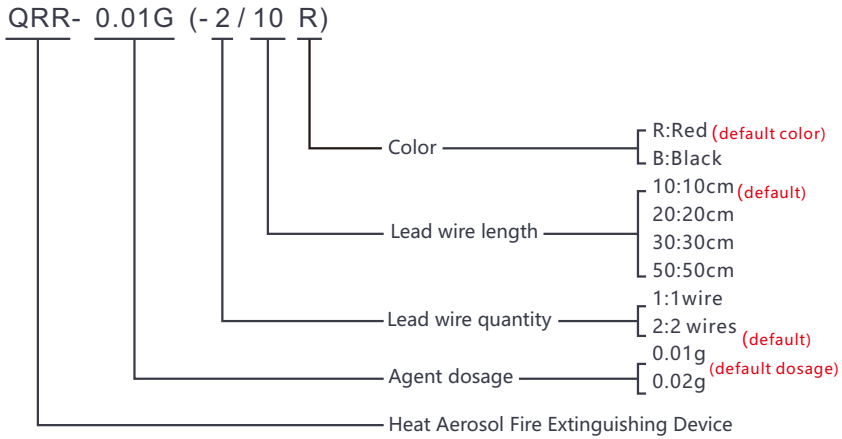
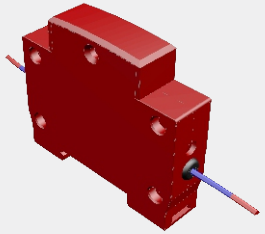
product description

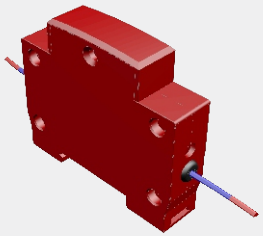
Fire extinguishing principle

- Heat Aerosol Fire Extinguishing Device is a new-generation formula independently developed by our company. It offers high fire suppression efficiency, is environmentally friendly, non-toxic, non-corrosive, and causes no ozone layer depletion.
- Heat Aerosol Fire Extinguishing Device is a solid chemical mixture composed of an oxidizer, reducing agent, combustion rate controller, and binder. Upon electrical or thermal activation, it undergoes an oxidation-reduction reaction, generating a large amount of condensed fire-extinguishing aerosol. The metal salt particles within the aerosol absorb significant heat at high temperatures, thereby lowering the flame temperature and inhibiting the combustion reaction. Simultaneously, under thermal influence, the vaporized metal ions and cations in the aerosol engage in affinity reactions with active radicals in the combustion process, repeatedly consuming large quantities of active species and efficiently absorbing free radicals in the flame, resulting in chemical inhibition. The presence of $N_2$and CO_2 in the extinguishing aerosol reduces oxygen concentration in the combustion zone. Through the combined action of multiple mechanisms—both physical and chemical—the agent achieves effective fire suppression. Furthermore, the aerosol, consisting of solid particles enveloped in extinguishing gas, remains suspended and dispersed over extended periods, reaching every corner to enable highly efficient total-flooding fire suppression.

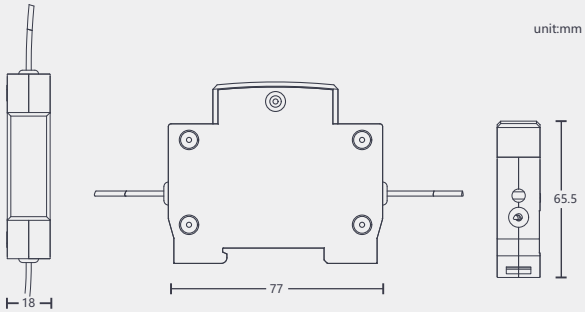
Model and its meaning



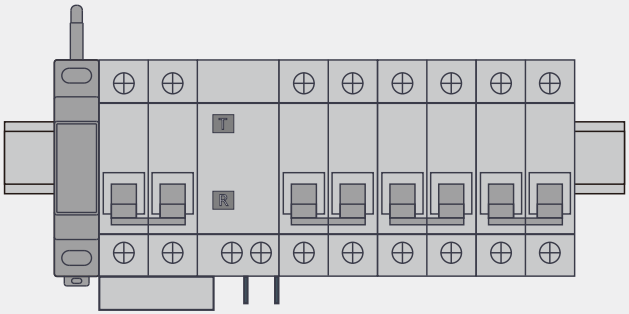
Product model	Function configuration	Technical Parameters	
 QRR-0.01G(-2/10RLK)	Agent Dosage	10g	20g
	Protection Space	≤0.4m³	≤0.8m³
	Discharge Time	≤6s	
	Operating Environment	-50~+90℃	
	Agent Shelf Life	10 years (for both)	
	Installation Method	Standard rail mounting /3M adhesive (for both)	
	Product Dimensions	77x18x65.5mm(for both)	
	Oxidizer Content / Barium Nitrate Content	50%~58% (for both)	
	Weight per Carton	9kg/carton	10kg/carton
	Dimensions of the box	405*247*232	



QRR-0.01G(-2/10RLK)



Installation method



use and maintenance

- When the fire extinguishing device is in normal working condition, the matching starting device should be inspected. The fire extinguishing device itself is maintenance-free within its validity period.

Precautions

- During installation and use, this technical specification manual must be read carefully. Corresponding protective measures should be prepared during the installation process, and operations should be standardized.
- During installation, the nozzle of the fire extinguishing device must not face people directly.
- During installation, maintenance and overhaul, it must be ensured that the circuit will not be short-circuited. A short circuit may cause the equipment to fail or start mistakenly with a certain probability.
- Before the fire extinguishing device is discharged, it should be ensured that the nozzle is in a closed state and the nozzle protection plug does not fall off to ensure reliable performance.
- The fire extinguishing device should not be installed in environments susceptible to rain, water pouring, or with high acidity and alkalinity that is corrosive.

- After the validity period expires, the user unit should contact the supplier.
- After the fire extinguishing device is activated, please clean it in time within 24 hours and contact our company.

Safety tips

- Non-professionals are prohibited from disassembling the device without authorization.
- After discharge, touching the device is forbidden before the casing cools down to prevent scalding.

Related Technical Standards

- XF 499.1-2010 Aerosol Fire Extinguishing System - Part 1: Hot Aerosol Fire Extinguishing Device
- Q/JAD 002-2018 Fast-Response Hot Aerosol Fire Extinguishing Device
- EN 15276-1:2019 International Standard
- EN 15276-2:2019 International Standard

After-sales Service

- Our company will provide corresponding technical support for the product in accordance with the national regulations on fire protection products.