Instructions for Use - FirexLion Q180 Aerosol Fire Extinguishing Device

1. Overview

The FirexLion Q180 fire extinguishing device (hereinafter referred to as the “device”) is a modern type of aerosol fire extinguishing system using S-type hot aerosol.

It is an innovative fire protection product with high extinguishing efficiency and reliability.

The device features:

- compact size,
- no pressure in the container,
- no need for a piping network,
- rapid extinguishing,
- non-toxicity and environmental friendliness,
- long service life (10 years).

It is intended mainly for enclosed spaces such as charging cabinets, switchboards, battery modules (PACK), energy storage systems (ESS), UPS systems, machine cabins and applications in the field of new energy sources.

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2. Extinguishing principle

After receiving a signal from the fire alarm control unit or from a heat-sensitive wire, the aerosol generator is activated.

A controlled reaction takes place inside the device, releasing hot aerosol - a fine mist consisting of microparticles and inert gases.

The aerosol rapidly disperses into the space and floods the protected volume, interrupting the combustion chain and extinguishing the fire.

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3. Technical parameters

Item	Value
Model	Q180
Weight	167 ± 5 g
Dimensions	124 × 77 × 14 mm
Operating temperature	-45 °C to +90 °C
Relative humidity	≤ 95 % RH
Activation method	Electrical or thermal
Generation time	≤ 5 s
Activation delay	≤ 2 s
Electrical start current	≥ 400 mA
Trigger temperature (thermal)	175 °C ± 15 °C

Item	Value
Body surface temperature	≤ 200 °C
Protection	passive switching signal
Protected volume	0.2 m^3
Aerosol density	200 g/m^3
Service life	10 years

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4. Installation and use instructions

1. The surface on which the device is installed must be clean and dry.
    - It can be attached using a 3M self-adhesive layer, screws or high-temperature cable ties (Ø4 mm holes).
    - Installation height is not critical; the device can be placed anywhere in the protected space.
2. There must be no obstacles within 0.3 m in front of the outlet opening.
3. Do not place the device near heat sources (>95 °C).
4. The nozzle must not point towards people.
5. Install the heat-sensitive wire around risk areas; do not attach it directly to high-temperature piping.
6. Do not install the device near ventilation, doors, windows or openings.
7. Do not expose to rain or a direct jet of splashing water.

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5. Transport, storage and preparation

- During transport and storage, the device must not be exposed to heat sources or direct sunlight. Keep a distance of at least 1.2 m from heating equipment.
- Do not use a damaged device (e.g. a deformed housing).
- Protect from moisture and rain and handle with care.
- Store in a dry and well-ventilated area.

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6. Inspection before use

1. Before installation, thoroughly check the condition of the device:
    - No dents, cracks or loss of colour.
    - Complete accessories.
2. During installation, prevent short circuits in electrical circuits - spontaneous activation could occur.
3. Damage caused by incorrect installation or maintenance is not covered by the warranty.

7. Safety instructions

- Do not disassemble without professional authorization.
- After activation, the surface of the device is at a high temperature - do not touch it. If handling is necessary immediately after discharge, use heat-resistant gloves.
- Keep out of reach of children.
- Smoking and handling open flames are prohibited in the installation area.
- After aerosol activation, fine particles may remain in the air - wear a protective mask or respirator when entering the area.
- Test the device only in accordance with the manufacturer’s instructions.

8. Warranty and service

The manufacturer provides warranty service, repair or replacement of the device in accordance with regulations for fire protection equipment. The service also includes technical support and professional advice.

9. Applicable standards

XF 499.1-2010 - Aerosol fire extinguishing systems, Part 1: hot aerosol devices.

10. Manufacturer/importer contact details

Traiva s.r.o, Pohraniční 104, Ostrava, 703 00, Czech Republic, www.traiva.cz, e-mail: info@traiva.cz, tel.: 603482835

Safety instructions

- Before installation, verify that the internal space of the cabinet has sufficient volume for aerosol dispersion.
- After activation of the device, ventilate the area to remove residual gases.
- After activation, do not immediately touch the device or reach into the protected space. The temperature may exceed 100 °C.
- Do not attempt to test the product while holding it in your hand or in an unventilated area. Keep away from children under 18 years of age.
- Combustion products from any fire are toxic, including fires involving Li-Ion batteries. Do not enter a smoke-filled room during or after a fire without ventilation or suitable breathing apparatus.

- In the event of a fire, especially a Li-Ion battery fire, remember that even a visually extinguished fire can reignite due to high temperatures retained in the centre of the fire. Additional cooling and supervision are necessary for every fire and for extinguishing with any substances.
- Do not attempt to reactivate or repair the device after use.
- When installing multiple units in a larger space, ensure even distribution according to the required extinguishing density (200 g/m^3). Only the free internal volume is counted.
- An annual visual inspection of the mounting, cabling and cleanliness of the area around the device is recommended.
- After each activation, carry out an immediate system inspection and replace the device with a new one.
- When used in environments with battery energy storage systems (ESS), connection to a temperature and smoke sensor system is recommended.