

FOREMA

**FIRE SUPPRESSION
SPECIALIST**

Système automatique
Innertage - Détection

www.forema.fr

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VEBON **NOVB**



EXXFIRE



NON-PRESSURIZED

GAS STORAGE



securing **hardware**

SECURING HARDWARE

EXXFIRE is a Dutch company with worldwide ambitions that has succeeded in bringing new space technology to the fire suppression market. The company started in 2011 as a European Space Agency (ESA) incubation start-up and since then has successfully raised 3 rounds of capital to build its organization and start production.

The organization consists of commercial, chemical, electrical and mechanical capabilities needed to become a key player in the fire suppression industry. More than 20 years' experience of marketing and sales, research and development, production and assembly has made this organization into one of the most innovative companies in the industry.

SPACE TECHNOLOGY

Patented EXXFIRE Cool Gas Generator technology contains unique features. The generator is derived from a small solid rocket. The non-pressurized, solid propellant is stored as a chemical block inside the precision engineered, IP67 housing. An initiator starts the decomposition of the propellant releasing Nitrogen gas at ambient temperature.

The gas leaves the generator through a specially designed anti-thrust nozzle and is released into the enclosed area. This robust and rigorously tested space technology is now available for fire suppression applications.

Development partner:

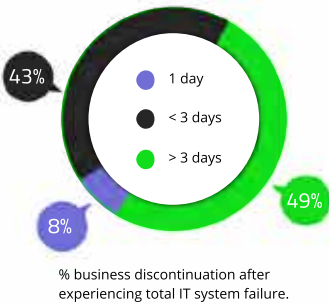


FIRE PROTECTION FOR BUSINESS CONTINUITY

Research has shown that more than 50% of companies faced severe losses or even bankruptcy after critical IT hardware failure. (source: HDI-Gerling).

Unfortunately, fire can be one of the main causes for downtime of critical hardware and loss of data. Critical operating resources such as IT racks, electrical switching and power distribution cabinets need protection against the threat of fire.

EXXFIRE products protect these systems against fire through early smoke detection and suppression, preventing large damage, limiting down-time and safe guarding continuity of your business at the lowest possible Total Cost of Ownership (TCO).



REAL BENEFITS

- GAS OUTPUT AT AMBIENT TEMPERATURE
- NON-PRESSURIZED NITROGEN STORAGE
- LOW NOISE LEVEL GAS RELEASE
- NO GLOBAL WARMING POTENTIAL
- LOW PRESSURE GAS RELEASE
- MAINTENANCE FREE
- NO RESIDUE CLEAN UP
- LONG SHELF LIFE



FIRE SUPPRESSION SYSTEM FOR OBJECT PROTECTION

Object protection is considered additional safety which can be installed without any legal requirement or certification. EXXFIRE object protection systems are designed in such a way that they can protect multiple types of enclosures such as server racks and e-cabinets but also power distribution units, switching cabinets or any other cabinet with high value or mission critical equipment.

It can either be installed inside the protected area or outside, with the required mounting kit.



THE SYSTEM

- › 3 dry contacts with NO/NC relays
- › Aspirating smoke detection
- › 3 Optical sensors
- › Dip switch setting
- › Mains powered
- › Back-up battery
- › LED indicators
- › Buzzer



TECHNICAL SPECIFICATIONS

DIMENSIONS

MM = 303x443x165
INCH = 11,9x17,1x6,5

WEIGHT

KG = 17
LBS = 38

EXTINGUISHING AGENT

N2 = NITROGEN
TEMP = AMBIENT

TEMPERATURE RANGE

°C = -25 to 65
°F = -13 to 149

GAS MASS (VOLUME)

KG = 0,9 / 1,98 lbs
L = 750 / 198 gal

PROTECTED VOLUME

M³ = 1,2 (High haz. Class A)
= 1,5 (Class A)
Ft³ = 42 (High haz. Class A)
= 53 (Class A)

OUTPUT PRESSURE

BAR = 5-10

LIFETIME GENERATOR

YEARS = 10

ADR/UN

CLASS UN-USED = 9
UN 3268
CLASS USED = 9
UN 3363 (Exempt)

PROTECTION RATING

ENCLOSURE CLASS = IP30
GENERATOR CLASS = IP67

VOLTAGE (MAINS)

V = 110/230AC

BATTERY LIFETIME BACK-UP POWER

LIFETIME = 4 YRS
HRS = 4

%OBS./M DETECT.

	Pre	Alarm	Fire
Low	1.68	3.12	3.52
Normal	1.36	2.32	2.72
High	1.12	1.52	1.92
Clean	0.72	0.96	1.20

GAS OUTPUT NOISE LEVEL

< 99 dB

GAS STORAGE PRESSURE

0 BAR

DESIGN CONCENTRATION

% = 40,3 Class A

% = 45,2 Higher Hazard Class A

750

INTEGRATED FIRE SUPPRESSION SYSTEM



SUPPRESSION

MOUNTING KIT TOP AND RACK

ASPIRATION DETECTION



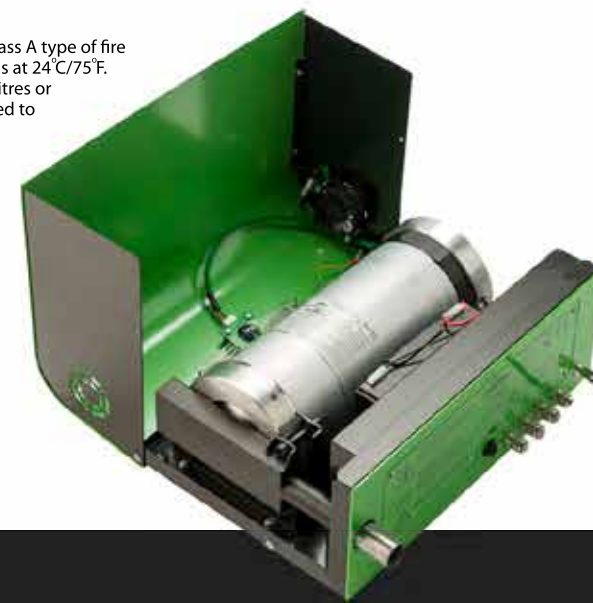
DESCRIPTION

The EXXXFIRE 750 can protect up to 1.5m³/53 ft³ of Class A type of fire in accordance with NFPA 2001 and UL2127 standards at 24°C/75°F. It contains one Cool Gas Generator producing 750 Litres or 0.9Kg/1.9Lbs of Nitrogen. The system is manufactured to CE applicable standards.

FEATURES

- › Pressureless gas storage
- › Plug and Play
- › Easy to install
- › Low maintenance
- › External mounting kit
- › 19" mounting kit
- › Air transportable*

*ADR Class 9/UN 3268



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Performance tested by:



0080.P1.16.0106

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THE SYSTEM

- 3 dry contacts with NO/NC relays
- Aspirating smoke detection
- 3 Optical sensors
- Dip switch setting
- Mains powered
- Back-up battery
- LED indicators
- Buzzer



TECHNICAL SPECIFICATIONS

DIMENSIONS

MM = 418x443x165
INCH = 16.5x17.1x6.5

WEIGHT

KG = 26
LBS = 57

EXTINGUISHING AGENT

N2 = NITROGEN
TEMP = AMBIENT

TEMPERATURE RANGE

°C = -25 to 65
°F = -13 to 149

GAS MASS (VOLUME)

KG = 1.8 / 3.96 lbs
L = 1500 / 396 gal

PROTECTED VOLUME

M³ = 2.4 (High haz. Class A)
= 3.0 (Class A)
Ft³ = 84 (High haz. Class A)
= 106 (Class A)

OUTPUT PRESSURE

BAR = 5 - 10

LIFETIME GENERATOR

YEARS = 10

ADR/UN

CLASS UN-USED = 9
UN 3268
CLASS USED = 9
UN 3363 (Exempt)

PROTECTION RATING

ENCLOSURE CLASS = IP30
GENERATOR CLASS = IP67

VOLTAGE (MAINS)

V = 110/230AC

BATTERY LIFETIME BACK-UP POWER

LIFETIME = 4 YRS
HRS = 4

%OBS./M DETECT.

	Pre	Alarm	Fire
Low	1.68	3.12	3.52
Normal	1.36	2.32	2.72
High	1.12	1.52	1.92
Clean	0.72	0.96	1.20

GAS OUTPUT NOISE LEVEL

< 99 dB

GAS STORAGE PRESSURE

0 BAR

DESIGN CONCENTRATION

% = 40.3 Class A

% = 45.2 Higher Hazard Class A

1500

INTEGRATED FIRE SUPPRESSION SYSTEM



SUPPRESSION

MOUNTING KIT TOP AND RACK

ASPIRATION DETECTION

DESCRIPTION

The EXXFIRE 1500 can protect up to 3.0m³/106 ft³ of Class A type of fire in accordance with NFPA 2001 and UL2127 standards at 24°C/75°F. It contains two Cool Gas Generators producing 1500 Litres or 1.9Kg/3.8Lbs of Nitrogen. The system is manufactured to CE applicable standards.

FEATURES

- Pressureless gas storage
- Plug and Play
- Easy to install
- Low maintenance
- External mounting kit
- 19" mounting kit
- Air transportable*

*ADR Class 9/UN 3268



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VEBON NOVB



THE SYSTEM

- 3 dry contacts with NO/NC relays
- Aspirating smoke detection
- 3 Optical sensors
- Dip switch setting
- Mains powered
- Back-up battery
- LED indicators
- Buzzer



TECHNICAL SPECIFICATIONS

DIMENSIONS

MM = 580x443x165
INCH = 22.9x17.1x6.5

WEIGHT

KG = 38
LBS = 84

EXTINGUISHING AGENT

N2 = NITROGEN
TEMP = AMBIENT

TEMPERATURE RANGE

°C = -25 to 65
°F = -13 to 149

GAS MASS (VOLUME)

KG = 2.7 / 5.95 lbs
L = 2250 / 594 gal

PROTECTED VOLUME

M³ = 3.6 (High haz. Class A)
= 4.5 (Class A)
Ft³ = 126 (High haz. Class A)
= 159 (Class A)

OUTPUT PRESSURE

BAR = 5-10

LIFETIME GENERATOR

YEARS = 10

ADR/UN

CLASS UN-USED = 9
UN 3268
CLASS USED = 9
UN 3363 (Exempt)

PROTECTION RATING

ENCLOSURE CLASS = IP30
GENERATOR CLASS = IP67

VOLTAGE (MAINS)

V = 110/230AC

BATTERY LIFETIME BACK-UP POWER

LIFETIME = 4 YRS
HRS = 4

%OBS./M DETECT.

	Pre	Alarm	Fire
Low	1.68	3.12	3.52
Normal	1.36	2.32	2.72
High	1.12	1.52	1.92
Clean	0.72	0.96	1.20

GAS OUTPUT NOISE LEVEL

< 99 dB

GAS STORAGE PRESSURE

0 BAR

DESIGN CONCENTRATION

% = 40.3 Class A

% = 45.2 Higher Hazard Class A

2250

INTEGRATED FIRE SUPPRESSION SYSTEM



SUPPRESSION

MOUNTING KIT

ASPIRATION DETECTION

DESCRIPTION

The EXXFIRE 2250 can protect up to 4.5m³/159 ft³ of Class A type of fire in accordance with NFPA 2001 and UL2127 standards at 24°C/75°F. It contains three Cool Gas Generators producing 2250 Litres or 2.7Kg/5.9Lbs of Nitrogen. The system is manufactured to CE applicable standards.

FEATURES

- Pressureless gas storage
- Plug and Play
- Easy to install
- Low maintenance
- External mounting kit
- Air transportable*

*ADR Class 9/UN 3268

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