

**FIREJET 165 24V / 48V  
SMOKE SYSTEMS  
CE EN12101-2 CERTIFIED**

The Firejet 24V/48V CE EN12101-1 Smoke System is also fully compatible with the Jet Cox VarioNorm Barrel Vault Range.

For further details, please contact our offices on 0121 530 4230 or sales@jet-cox.co.uk

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**ACCESSORIES**

- Wind Deflectors
- 24 v / 48v Control Panel with Battery Backup
- Emergency Push Button
- Open / Close operation for Ventilation
- Smoke Detectors
- Wind & Rain Sensors
- Safety Fall Grids
- Safety Anchor Points

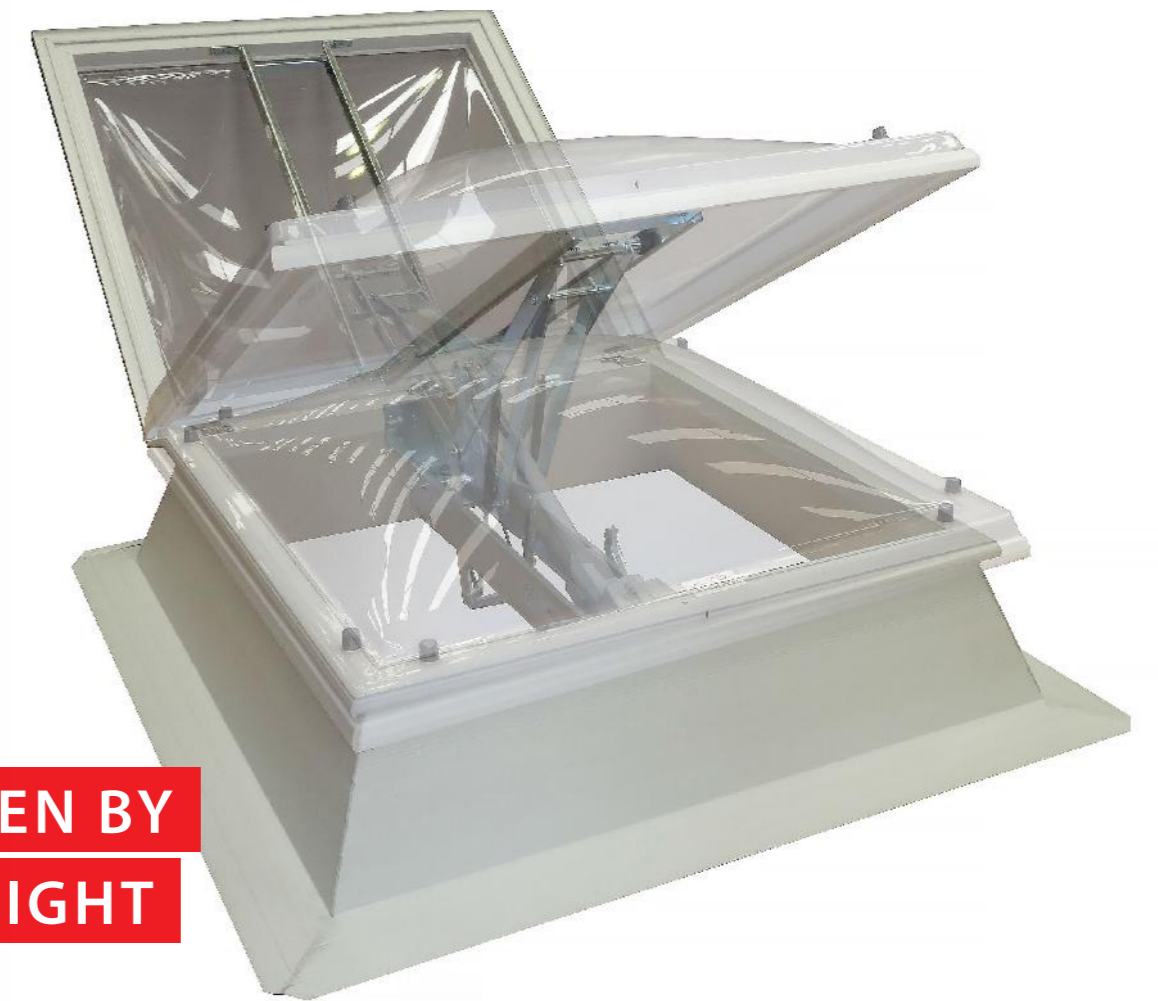
**48V SYSTEM Vs 24V SYSTEM**

The FireJet Range can also be specified as a 48V system.

This option can provide many advantages to multi-unit applications.

- **Improved Performance**
  - Less Voltage Drop between multiply units
  - Increased power in the event of high Snow Loads
- **Cost Reductions**
  - Each 48V Control Panel will operate double the number of SHEV units
  - Reduction in Cable cross sectional size
  - Significant reduction in Installation

**DRIVEN BY  
DAYLIGHT**



**IN THE CASE OF A FIRE WITHIN A BUILDING MORE THAN 90% OF FATALITIES ARE CAUSED BY SMOKE POISONING**

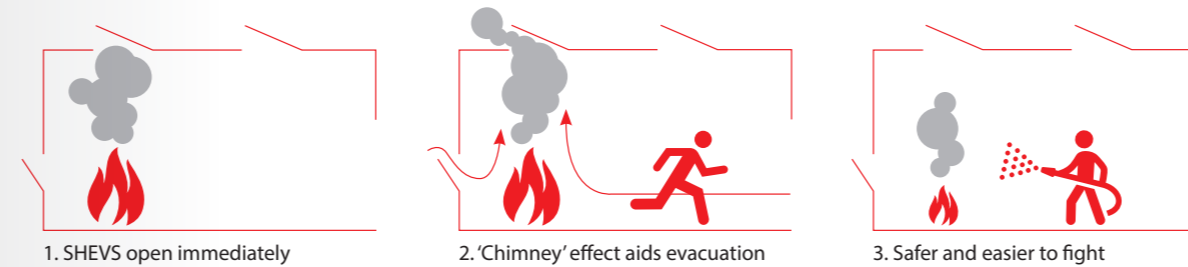
The greatest immediate danger to the occupants of a large building in the event of a fire comes from the smoke rather than the heat of the fire. Even a small fire can rapidly fill a large building with smoke to an extent where people escaping the building cannot see to find the escape routes and can be overcome by smoke inhalation.

The recognised method of addressing these problems is to provide a smoke ventilation system with automatically operated roof ventilators.

Smoke and Heat Exhaust Ventilation Systems (SHEVS) are therefore an essential component of any building's fire protection design concept. In a fire situation, smoke and heat exhaust ventilation systems create and maintain a smoke free layer above the floor by removing smoke. They also serve simultaneously to exhaust hot gases released by a fire in the developing stages. Their value in assisting in the evacuation of people from buildings and other constructions works, reducing fire damage and financial loss by preventing smoke damage, facilitating access for firefighting by improving visibility, reducing roof temperatures and retarding the lateral spread of fire is firmly established- so much so, it has become a legal requirement for all SHEV systems to be classified under CE EN12101-2.

### PRINCIPAL OF SMOKE VENTILATION (WITH SHEVS)

In principle, high-level outlet vents and low-level inlet vents open automatically in the event of a fire to allow cool air into the building and allow smoke and hot air to flow out. This improves the conditions for occupants to escape and fire-fighters to enter. In the absence of ventilation, smoke fills the room, being drawn back down from the ceiling by convection as temperatures rise, leading to potential—and particularly dangerous—'flashover'.



### WHAT IS EN12101-2 CERTIFICATION?

EN Standards are written by CEN, the European standards organisation, on the basis of a mandate from the Commission. Standards detail the performance characteristics required of products to ensure they achieve minimum safety and operational standards. EN12101-2 relates to Natural Smoke & Heat Exhaust Ventilators and has become mandatory, replacing various national regulations, including BS7346 and DIN 18232.

EN12101-2 covers the following parameters:-

Characteristic	Harmonised Standard	Explained
<b>Reaction to Fire</b> Upstand & Lid	EN12101-2:2003 7.5.2.1	Test to determine the Classification of the Upstand and Lid when exposed to fire
<b>Resistance to Heat</b> B Class (B 300, 600°C)	EN12101-2:2003 Annex G	Test to check at what temperature the unit will remain operational
<b>Snow Load</b> SL Class (SL 0, 125, 250, 500, 1000 N/m <sup>2</sup> )	EN12101-2:2003 Annex D-E	Maximum snow load class under which the unit will continue to open and stay open
<b>Wind Load</b> WL Class (WL 0, 1500, 3000 N/m <sup>2</sup> )	EN12101-2:2003 Annex F	Maximum wind load class to ensure that when closed the unit can withstand the negative pressure of the class
<b>Low Ambient Temperature</b> T Class (T -25, -15, -5, 0°C)	EN12101-2:2003 Annex D-E	Test to check at what minimum internal ambient temperature the unit will remain operational
<b>Reliability</b> RE Class (Re 50, 1000)	EN12101-2:2003 Annex C	Test to determine how many times the unit can be opened (165° function) and remain reliable
<b>Co-efficient of Discharge</b> Aa-Value	EN12101-2:2003 Annex H	Test to determine the aerodynamic free area of the unit

Jet Cox FireJet 165 24V/48V Range provides a smoke and heat exhaust ventilation system for all Commercial and Residential applications.

Supplied factory assembled and factory tested all products are certified to CE EN12101-2. FireJet rooflights not only help to provide smoke extraction in the event of a fire but they also provide day-to-day controllable ventilation. Available in a wide range of sizes (many of which are held in stock) the Jet Cox FireJet range complies with the latest Building Regulations on Fire Safety and can be integrated into any Building Management System.

Linked to a central control panel, complete with a battery backup system in case of mains failure, the control panel can be triggered from either manual override switches local to the ventilator and the ground floor, by dedicated smoke detectors, or by interfacing with a third party smoke detection/fire alarm system.

The FireJet Range is available with CLEAR or OBSCURE polycarbonate glazing to enhance the buildings natural daylight or with a fully insulated ALUMINIUM solid cover.

Upstands can be specified either 300mm Splayed PVC-u or 300mm/400mm/500mm Splayed Metal.

### FEATURES – FIREJET 165 24V/48V

- Sizes from 1000mm x 1500mm to 1500mm x 2500mm
- Opens to 165°
- Galvanised Steel Mechanism
- Glazed Polycarbonate Cover or Solid Insulated Aluminium Cover
- One Mechanism regardless of size
- Optional Day-to-Day Ventilation Position without additional motor
- Extremely Low Noise Level
- Compact 24V/48V DC Motor Unit / Sealed IP54

### TECHNICAL SPECIFICATION

- CE EN12101-2 Certified
- Certificate 1368-CPD-C-002/2009 (I.F.I Institute, Germany)
- Aerodynamic Free Area up to Aa2.74m<sup>2</sup> \*
- Snow Load up to 2400N/m<sup>2</sup>
- Wind Load up to 1500N/m<sup>2</sup>
- Low Ambient Temperature T(-15°)
- Heat Exposure B300
- Reaction to Fire Class E
- Opening Speed <60secs

\*Aa-Value in m<sup>2</sup> (aerodynamic effective smoke exhaust surface) according to DIN EN12102-2

Rooflight Size / Roof Opening Size (mm)
1000 x 1500
1200 x 1200
1200 x 1500
1200 x 1800
1200 x 2100
1200 x 2400
1200 x 2500
1250 x 1250
1250 x 1500
1500 x 1800
1500 x 2100
1500 x 2400
1500 x 2500



Full technical data sheets are available detailing Geometric Areas, Aerodynamic Values, Snow Loads etc. For further information please contact our offices on 0121 530 4230 or at sales@jet-cox.co.uk