FLAMESHIELD EV01 “S” FIRE & SMOKE CURTAIN 24 VOLT TUBE MOTOR (1HR, 2HR)

Please note this curtain contains elements of BS 8524. For a curtain fully tested to BS 8524 specification sheet A1S/10/19-SS01

APPROVED STANDARDS

BS EN 1634-1:2014
BS EN 1634-3
BS 476 : Part 6
BS 476 : Part 7
BS EN 12605
BS EN 14600
BS EN 13501-2
BS EN 16034 (New European Standard)
BS 8524-1 (Annex D)

RADIATION PERFORMANCE

85 minutes <15kW/m2

INTEGRITY
60 minutes 1 Hour integrity
120 minutes 2 Hour integrity

FIRE & SMOKE CURTAINS C/W SEALS

Product Construction all our fire / smoke control curtains are manufactured and produced in accordance with the parameters and technical respects indicated within the specification, which was submitted to the Warrington Fire Research Establishment. The curtains constructed to Warrington Fire Research Centre, the test is in accordance with BS EN 1634-1 for Fire and Radiation (Radiation & tenability replaces the insulation zone) and BS EN 1634-3 for smoke containment. The construction and manufacture is in accordance with Warrington test WF 341175 and WF504593 Manufactured in accordance with sections of the relevant European Standard BS EN 16034.

Basic description The automatic curtains comprise of a mild steel barrel and motor incorporating an attached fabric curtain, the barrel deflection conforms to the necessary British Standard BS 6323-5, the fabric can withstand temperatures in excess of 1000^{0}C the unique 2 section bottom rail allows smooth operation of the curtain.
The fire barrier shall be powered by an internal 24V DC electric motor that has all of the applica-ble safety standards.

Fabric Fire curtains are formed from a fire rated fabric 0.54mm thick stainless steel wire reinforced, with a specially formulated aluminum pigmented and fire retardant polymer which provides a heat reflecting surface as well as other properties for smoke and fire.

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Email : enquiries@a1sgroup.com
Web : www.a1sgroup.com

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Industrial Estate, Bolton, BL3 2NH

The fabric has been independently tested for fire propagation in accordance with BS 476-6 in addition to this it also conforms to BS 476-7 which relates to surface spread of flame and in accordance with Approved Document B 2006.

As a requirement of BS EN 1634-1, the fabric and curtain are tested as a complete assembly in compliance with BS EN 1363-1 and BS EN 1363-2. Test no. 519625/LR

Achieving an air permeability rate of <3m3/h/m, at a pressure of up to 25 Pa and in accordance with BS EN 1634-3. Test no. WYC 504211

Radiation (fire curtains are now measured by radiation not insulation zone), is tested in accordance with BS EN 1363-2 : 1999, at 1000mm from the fire curtain (the nearest tested point to the curtain and at 15 minutes), the maximum radiation should be no greater than 13.7kW/m2, the A1 curtain recorded 5.331 kW/m2 well within the permissible levels under BS 8524-2 2013 (5.3.2).

Sampling a representative of Warrington Certification Ltd conducted the sampling and selection of the tested specimen, this was to cover a requirement of EN 16034 the new European Standard.

Reliability, Response Time and Durability tests performed in accordance with BS 8524-1, Annex D Warrington Fire Report 340986.

Barrel Fire curtain barrels are manufactured from mild steel tube, tube size dependent on the overall size of the unit and deflection calculated to conform to British Standards.

Tested to controlled speeds in all circumstances including gravity, closing to the operational position on total power failure with the no need for a secondary supply for regenerative absorption.

When the barrier is retracted the armature shall be isolated from the supply and the barrier shall be locked in position with the electromagnetic brake. Thus ensuring the motor armature not damaged and the retracted position is maintained without drift.

The barrier shall operate with the back up of secure gravity fail safe.

The barrier shall move to the operational position, via controlled descent, when all primary and secondary power is exhausted. In the event of a mains power failure backup power shall be provided by the inbuilt secondary power source, the barrier shall remain in the retracted position and continue to monitor the alarm and system inputs. If signaled to operate during this period the barrier shall operate as normal.

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All barriers shall have a current limit stall option in the retracted position to negate damage to ceilings and fascias.

The secondary supply voltage source is continually monitored. If the voltage becomes critically low the barrier shall be signaled to close to the operational position (normally between 30 and 120 minutes).

The barrier shall move to the fire operational position with a velocity within the range of 0.06m/s to 0.15m/s.

The barrier shall require an alarm signal provided by the Electrical Subcontractor. This signal shall be volt free, normally closed (open on alarm signal).

Partial Drop

- The barrier shall have the facility to deploy to a pre-determined position to allow escape and initial smoke containment. The partial close position shall be site adjustable with an adjustable wait time in the partial close position of up to 10 minutes.

Emergency Retract :

- The barrier can have an emergency retract interface for escape and emergency access. The interface shall be volt free, normally open (close on operation). The signal required shall be momentary with a site adjustable retract time. The emergency retract facility shall be operational as long as there is primary / secondary power available.

BMS Interface

- The barrier has volt free c/o contacts to indicate whether the barrier is fully open or fully closed.

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1) Delay before open
0-600 seconds

2) Delay before close
0-600 seconds

3) Low battery drop
Panel monitors low battery and power supply

The system has a full suite of optional extras which can be incorporated with additional relays which can be programmable for input and output.

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