SPECIFICATION

A1S/10/19-SS05

"FLAMESHIELD 1634 "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 see specification sheet A1S/10/19-SS02

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)

(PAS 121 is no longer current, it was withdrawn by the British Standards Institute on the 31 July 2013, please see above relevant standards).

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. Manufactured in accordance with certain sections of the new European Standard BS EN 16034 which will shortly be implemented.

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 10000C 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 applicable safety standards.

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

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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 spreadof 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.

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.

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 dependant on the overall size of the unit and deflection calculated to conform to British Standards.

Operation / Control System The fire curtain barrier shall meet the requirements of BS 8524-1and BS 8524-2 (where appropriate)

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 in accordance with BS 8524-1.

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 signalled 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 signalled 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 in accordance with BS 8524-1 Annex D

The Barrier shall require an alarm signal provided by the Electrical Subcontractor. This signal shall be volt free, normally closed (Open on alarm signal). Fire detection / alarm systems shall conform to BS 8524-1 (5.8.4)

Optional Extras :

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 forescape and emergency access. The interface shall be volt free, normally open(close on operation). The signal required shall be momentary with a siteadjustable retract time. The emergency retract facility shall be operational as longas there is primary / secondary power available.

Audio / Visual / Spoken Warning Unit

- The Barrier has a volt free c/ocontact which indicates an active c/o (change over) contact which indicates anactive alarm signal. An Audio / Visual / Spoken warning unit can be interfacedwith this using power supplied by the primary / secondary source or via anexternal source.

BMS Interface

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

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Obstruction Device

- An obstruction beam detection device, with onsiteadjustable time module between 5 minutes and 10 minutes, shall sound in theevent of an obstruction being present as along as mains power is available. Theobstruction device shall not stop the barrier from deploying it to its activeposition. Where sensory equipment for detecting obstructions to barrierassemblies is provided they shall conform with BS 8524-1 (5.8.5)

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