SPECIFICATION

FIREMASTER® CONCERTINA™ "CLOSED"

ACTIVE FIRE CURTAIN BARRIER ASSEMBLIES

In accordance with:

BS EN 1634-1
BS EN 12605
BS EN 14600
BS EN 13501-2
BS 476-6+A1
BS 476-7

Period of Fire Resistance:

Assessed to 240 minutes (4 hours) integrity

Period of Radiation:

30 minutes <15kW/m^2

Classification:

E240 EW30 C1, Class "0"

Certification:

Complete barrier assemblies are certified by an independent accredited certification body operating to ISO/IEC 17065:2012.

Product Name and Model:

FireMaster® Concertina™ "closed" active fire curtain barrier assemblies

General description:

An electrically operated FireMaster® Concertina™ "Closed" active fire curtain barrier assembly used to form a virtually continuous barrier as a fire separating element.

FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies comprise a stainless-steel reinforced glass fibre fabric, fan-folded and retained in a metal tray, powered by an internal 24V dc electric motor, enclosed within a 1.2 mm Stainless Steel box.

A bottom bar is fitted to the bottom edge of the curtain providing tension to the curtain with sufficient weight for the curtain to 'fail-safe by gravity'.

The 24V motor contains an electromagnetic brake to arrest motion of the curtain when in the open position.

The FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies have been tested to the requirements of BS EN 14600:2005 for 'Durability of Self-Closing' (500 cycles on primary power and an additional 50 cycles using back-up power; closing speed of 0.08m/s).

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The FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies have been tested to the requirements of BS EN 1363-1: for 'Fire Resistance' (240 minutes integrity).

The FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies have been tested to the requirements of BS EN 1363-2 for 'Radiation' (30 minutes).

Operation:

FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies commence movement upon initiation of alarm or power or system failure, and fully deploy to the fire operational position within the range of velocities of 0.06 m/s to 0.15 m/s using the unique VarioSpeed™ function.

Operating speeds are site adjustable without altering the bottom bar mass. Speeds may be dictated by those authorities having jurisdiction for 'safety in use' according to the location, nature or function of each unit.

In the event of a mains supply power failure, the curtain is retained in the open position for a pre-determined period (nominally 30 minutes), using battery back-up power. During this period, the Barrier assembly will deploy on receipt of a signal. At the end of the period, the Barrier assembly will deploy.

Fabric:

The main curtain fabric type is EFP™ A1, which is a stainless steel wire reinforced glass fabric fire barrier. It has an area weight of 665g/m^2 ± 10%.

The curtain fabric offers dimensional stability and is non-combustible to BS EN 13501-1 + A1– Reaction to Fire.

The fabric has passed testing to BS EN 1634-1, BS EN 1363-1 and BS EN 1362-2

The fabric has passed testing to BS 6853 Annex B.2 (Toxicity)

The fabric has passed testing to BS 6853 Annex D.8.4 (Methods for Measuring Smoke Density)

The fabric has passed testing to BS EN ISO 1716 (Determination of the Heat of Combustion for Building Products)

The fabric has passed testing to BS 476 part 6 (Fire Propagation Tests) and part 7 (Surface Spread of Flame Tests)

The fabric has passed testing to BS EN 13823 (Reaction to Fire Tests – Single Burning Item)

The fabric has passed testing to HSG 248 (Analysis of Material for the presence of Asbestos)

The fabric has passed testing to BS EN 14184-1 (Textiles – Determination of Formaldehyde – Part 1: Free and hydrolysed formaldehyde (water extraction method)

Optional extras:

- Voice warning:

  Audio or spoken multi message facility when mains or emergency power is available.

- Visual alert system:

  Light warning system when mains or emergency power is available.

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- Split drop delay:

  To partially deploy to pre-determined level to permit escape, and initial smoke containment. After delay fully deploys to its fire operational position when mains, or emergency power is available.

Manufacturers:

Subject to compliance with all requirements set out in this specification, manufacturers offering products may be incorporated into the work are limited to the following:

Coopers Fire Limited, Ignis House, Houghton Avenue, Waterlooville Hampshire, PO7 3DU, United Kingdom. Tel +44 (0)23 9245 4405

Email: sales@coopersfire.com, Web: http://www.coopersfire.com

Warranty:

The manufacturer shall submit a written warranty for a period of one (1) year. If any part of the works of this section, including design, fabrication or installation are sublet to any party, such party shall provide a collateral warranty equivalent to the warranty.

Product certification, performance and/ or testing:

- Complete FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies are certified by an independent accredited certification body operating to ISO/IEC 17065:2012.
- Complete FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies are certified with an independent accredited certification body operating an accredited UKAS scheme for installation, commissioning and servicing.
- Complete FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies have been tested for fire resistance to BS EN 1634-1. The Barrier assembly achieved 240 minutes Integrity and 30 minutes Radiation.
- Complete FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies have passed tests for durability to BS EN 12605 (500 cycles), and for self-closing to BS EN 14600 (C1).
- Motor(s) used within FireMaster® A1 active fire curtain barrier assemblies have been cycle tested for 50,000 operations (C3)
- Motor(s) used within FireMaster® Concertina™ "Closed" active fire curtain barrier assemblies have passed elevated temperature operational tests to BS 8524-1:2013, Annex G.

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Approving standards:

The following standards apply to this product:

- BS EN 1634-1:2008: Fire resistance and smoke control tests for door, shutter and, openable window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and openable windows
- BS EN 1363-1:1999: Fire resistance tests – Part 1: General requirements
- BS EN 1363-2:1999: Fire resistance tests – Part 2: Alternative and additional procedures
- BS EN 13501-2:2007+A1: Fire classification of construction products and building elements. Classification using data from fire resistance tests, excluding ventilation services rating
- BS 5234-2: Partitions (including matching linings) – Part 2: Specification for performance requirements for strength and robustness including methods of test
- BS EN 12605:2000: Industrial, commercial and garage doors and gates. Mechanical aspects. Test methods.
- BS EN 14600:2005: Doorsets and openable windows with fire resisting and/ or smoke control characteristics. Requirements and classification
- BS 476-6:1989+A1:2009: Fire tests on building materials and structures. Method of test for fire propagation for products
- BS 476-7:1997:, Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products
- BS EN ISO 1716: Determination of the Heat of Combustion for Building Products
- BS 6853 Annex B.2: Toxicity
- BS 6853 Annex D.8.4: Methods for Measuring Smoke Density
- BS EN 13823: Reaction to Fire Tests – Single Burning Item
- BS EN 14184-1: Textiles – Determination of Formaldehyde – Part 1: Free and hydrolysed formaldehyde (water extraction method)
- BS EN ISO 9001:2008: Quality management system
- BS EN ISO 14001:2004: Environmental management system