ADEXON®

ADEXON-FC120e Concertina
Technical Information

2021

ADEXON-FC120e Concertina
Description

ADEXON-FC120e Concertina is an Automatic Fire Curtain that limits and controls the spread of fire, with the classification E120. This system can be adapted to suit irregular geometric perimeters, both open and closed, to avoid vertical beams. This is commonly used to encase escalators etc.

The Fire Curtain is composed of: polyurethane coated fibreglass fabric embedded with reinforced steel wire, and fixed to 2mm plate inside the headbox and bottom bar, complete with galvanised steel headbox, side guides and bottom bar, which can be powder-coated to a full range of RAL colours (other non-standard colours are available upon request).

The fire curtain is operated by 230V dc tubular motors, with gravity fail-safe systems and controlled by an electronic board, ADEXON'S CRM (Control and Regulation for Motor), with a gravity fail-safe system. The nominal input voltage for the control panel is 115Vac or 220Vac, with an output voltage of 230V or 24V. Uninterruptible Power Supply (UPS System) with up to 6 hours exists in our control panels.

Tested and approve to UNE EN 1634-1 and EN 1363-1.

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OPERATION

The system can be activated by a fire alarm contact, internal fire and smoke detection devices, SHEV (smoke and head exhaust ventilation), or manual emergency buttons. In the event of a fire, the ADEXON Control Panel (CBM), receives the signal alarm, and the curtain deploys automatically, with a controlled constant speed of descent, even upon gravity fail-safe descent following total power loss. If there is a false alarm, the curtains will automatically return to their fire ready positions after resetting the alarm at the main fire management/ building management system. In the case of complete power loss, the curtain has 6 hours of battery back-up to ensure it stays in the fire ready position long enough to restore the mains power.

FABRIC

The fibreglass fabric resists up to 1100°C sewn as the concertina shape. The polyurethane coating on both sides guarantees mechanical stability when handling the fabric, not only in the sewing process but also during installation. All seams are sewn with reinforced stainless-steel wires coated with Kevlar.

HEADBOX

Manufactured from 1.2mm thick galvanised steel. The shape of the headbox can be adapted to suit any architectural and maintenance requirements. Headbox dimensions vary depending on the size of the curtain (height and width).

SIDE GUIDES

Manufactured from 1.5 to 3mm thickness galvanised steel. Guide thickness varies depending on the size of the curtain (height and width).

ROLLER

Manufactured from 3mm thick galvanised steel with a diameter of 42mm. With a chain connection to an external motor,

BOTTOM BAR

Manufactured from 1.5mm thick galvanised steel.

ELECTRIC MOTOR

ADEXON motor

Motor 230V / Brake 24V

Maximum power: 240 W/120Nm

Maximum current: 6 A

Average linear speed: not defined (dependant on the dimensions of the curtain)

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CMB CONTROL PANEL

Receives the alarm signal and controls the movement of the curtain, alongside visual and acoustic alert systems.

Dimensions: 400mmW x 500mmH x 200mmD
Input: 115 or 220 Vac 50Hz
Output: 24Vcc / 230V
Battery: 2 x 12Vcc 7.5 Ah rechargeable (up to 6 hours)
Maximum capacity: up to 12 motors

OPTIONAL EXTRAS

RAL coating: headbox, side guides, and bottom bar.
Stainless steel elements: headbox, side guides, bottom bar, screws, and rivets.
CBM control panel: special design with additional information output, micro switches, communication with other devices, special battery backup, and delayed curtain deployment.
Emergency button: the button immediately deploys the curtain.

Note: other requirements and customised solutions are available on request.

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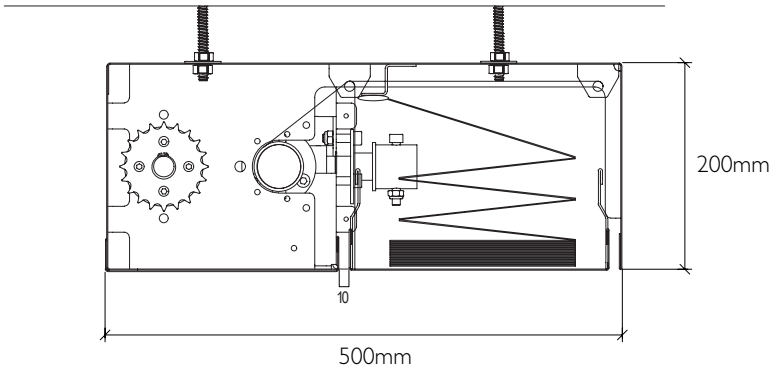
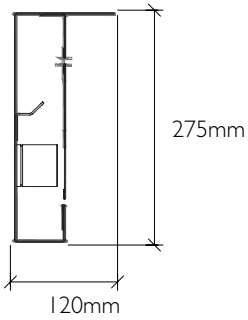
HEADBOX



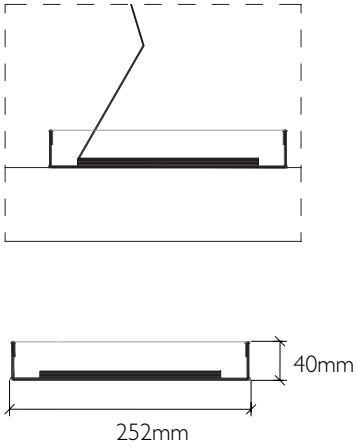
HEADBOX DETAIL FABRIC UP

SIDE GUIDE



SIDE GUIDE FOR OPEN PROFILE

BOTTOM BAR



BOTTOM BAR DOWN

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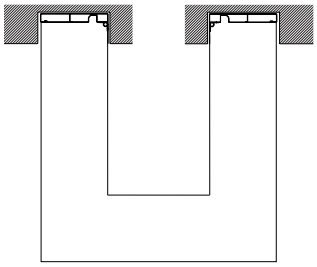
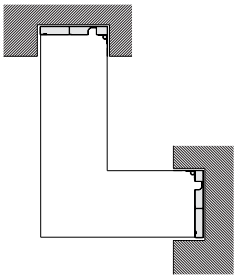
DIFFERENT GEOMETRIES



U SHAPE



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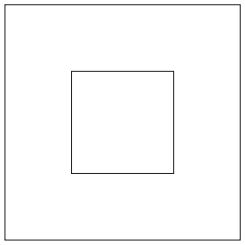

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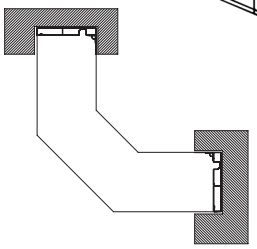
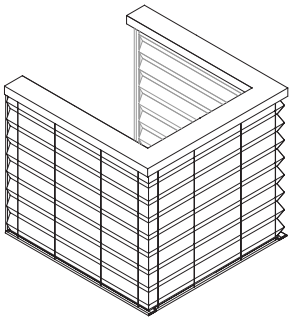


IRREGULAR SHAPE



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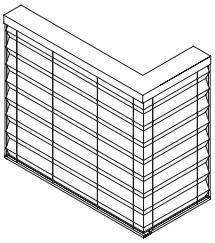

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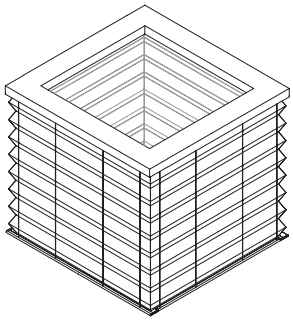

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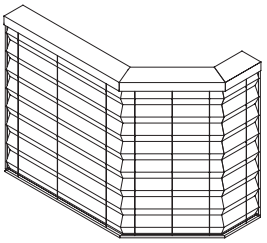

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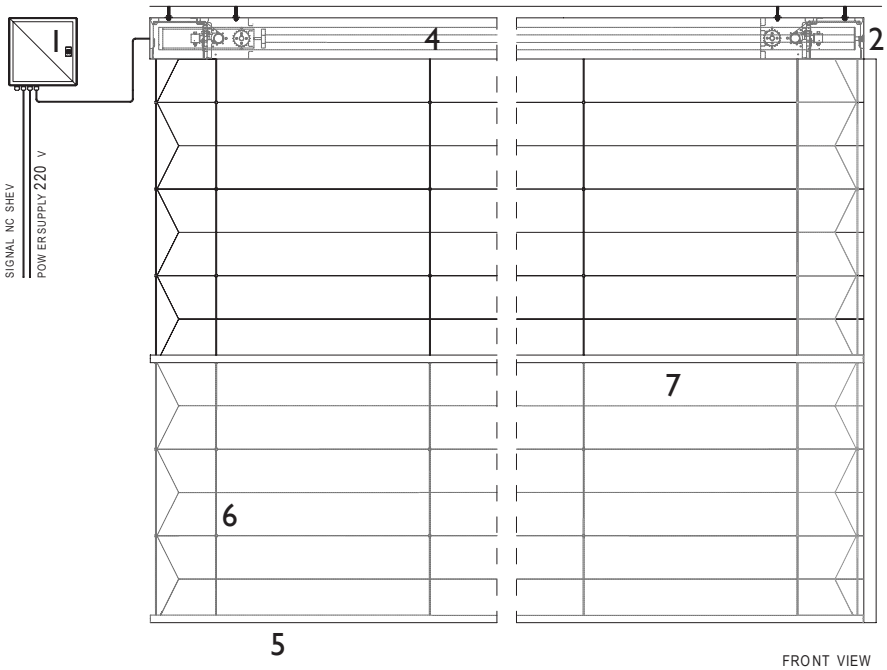
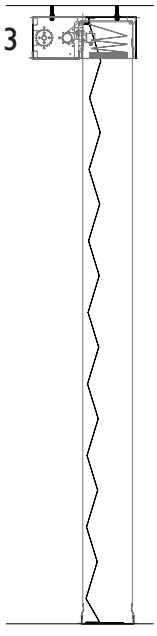


FRONT VIEW



VERTICAL SECTIO N

1. CONTROL PANEL CBM
2. TUBULAR MOTOR 230V
3. GALVANISED STEEL HEADBOX
4. GALVANISED STEEL ROLLER
5. GALVANISED STEEL BOTTOM BAR
6. LIFTING STRIPS
7. CONCERTINA FABRIC

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