

AND MANAGEMENT OF ACTIVE CURTAINS



CONTROL PANEL

The functioning of the **Active smoke curtain SC1 and FC240** is carried out by a **Control Panel**. Each panel can control up to 6 motors of 24 V.

OPERATION

Under normal operating conditions, the panel provides a 24 V supply of alternating current to the curtains motor to keep the curtains gathered up.

If smoke was detected, the fire alarm contact in the panel will be opened due to the alarm control system. The panel will eliminate the 24 V supply of the curtain motors and the curtains will go down under gravity, in a controlled way.

FEATURES

As soon as possible, the fire alarm system will restart, the panel will restore the 24 V supply to the motor curtains and the curtains will go up. Circuits limiting the current will detect that the curtain is fully gathered up and the supply tension will lower to a holding voltage. Each panel has a 24 V 7aph, which enables the control of the system in case the power supply breaks down.

Supply	230 V 50 Hz CA or 120 – 130 V 60 Hz CA.
Battery	3 hours, 2 x 7 aph lead-acid hermetic element, rechargeable.
Fire signal	Opened with fire, configured not to fail.
Test performance	Commutator.
Signs	LED green = conmutators in good conditions. LED yellow = battery failure. LED red = burnt fusible. LED green = fire alarm normal state.
Panel size	396 mm height x 334 mm width x 105 mm depth.

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MOTOR FOR ACTIVE SMOKE CURTAINS

Our motor and the circuit control of the 24 V were redesigned in 2001. We have now a new circuit control which allows each motor to lift a weight of 20 kg and at the same time, it is capable to pass the 2000 cycles test as required in BS 7346: part 3. The new supply capacity has made possible for the curtains to be manufactured with a fall of 12 m over a 2,8 m roller width.

The control circuit of the motor is housed in a remote space in order to help the maintenance engineers. The control circuit can be reached to carry out the routine maintenance supervisions with no need of removing the **Smoke Curtains**.

Up to six control circuits of the motor can be connected to the control panel. Motors with a 127 mm tube, consume more and can be connected to a maximum of three units to the control panel of the group.

Dimensions of the motor control circuit: 145 mm height x 250 mm length x 50 mm depth.

Motors are made of CC with permanent magnet. Due to its modest size, these motors are quite suitable for semi industrial applications, such as the curtains rolling up or the automatic doors.

TECHNICAL STANDARDS

Nominal Voltage: 24 V.

Nominal Speed: 3.100 r.p.m.

GEAR DESCRIPTION

Planetary gears are particularly suitable for industrial applications. They are equipped with a lubrication system very viscous and the gears transmit higher torque. The double support of the output shaft can resist big radial and axial forces, with a self-centric planetary wheel which provides a symmetric force distribution.

Safe operation against failures.

Incorporated device to limit the current. No need of switches to limit the motors.

Synchronised control circuit of the motor. No need of variable speed control.

DESIGN

Our motors are designed to offer a lifetime without maintenance. The careful selection of the most appropriate components guarantees a larger lifetime with the desired operating speeds.

Up to six motor units can be controlled from each control panel of the group (depending on the tube dimensions).

Performance of the low voltage limit of the battery. The curtains lower in a controlled manner.

Available with a 24 V integrated brake unit to provide a second phase fall.

The brake unit supplies itself thanks to the time circuits housed in the control panel of the group to stop the curtains while they lower. This way, we can stop the curtain to fully lower and offer a partial curtain.

TECHNICAL STANDARDS OF THE GEAR BOX

Torque continuous: 1400 Ncm.

Efficiency: 0,70.

Ratio: 100,00.

Load capacity of the axial shaft: 150 N.

Loas capacity of the radial shaft: 250 N of the synchronized motor control, the variable speed control is no needed.

