



Installation and maintenance instructions

SKYBAIE® electric

Designation and commercial reference: SKYBAIE® électrique

Certificate No. : 0333 CPR 219087

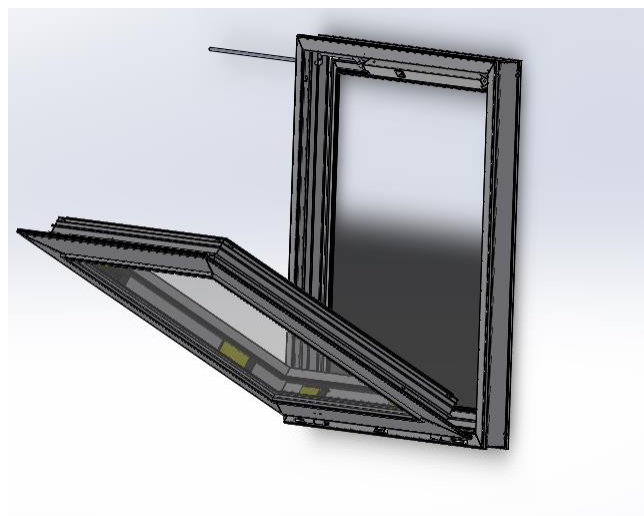
DOP SEL

Year of certificate: 2015

Reference standard: NF EN 12101-2 / NF S 61-937-1 / NF S 61-937-7

Certification rule: NF 405 / CE 219

Warning: This notice does not constitute a contractual document, the manufacturer reserves the right to make without notice any modification he deems useful.



Certifying body:
AFNOR Certification
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This mark certifies:
Compliance with standard
NF EN 12101-2



NF-DISPOSITIFS D'ÉVACUATION
NATURELLE DE FUMÉES ET DE
CHALEUR

This mark certifies:
- Compliance with standard NF S 61-937-1 and NF S 61-937-7
- The values of the characteristics announced in this sheet
- Compliance with NF 405 certification rules

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1 Identification:

Range Name :SKYBAIE ®

Commercial reference: SKYBAIE ® électrique

Type of DENFC Assembly: Facade ¹
Roof

Product certifications: CE Yes No
NF Yes No

Descriptive:

The electric SKYBAIE ® is a façade frame for smoke and heat evacuation and natural ventilation, equipped with the necessary components for its opening. It is powered by electrical energy within the meaning of standard NF EN 12101-2. The availability of the energy source must be ensured.

2 Possible hazards in the range:

- Chassis:
 - Aluminium frame and opening
- Fills:
 - Glass
 - Cellular polycarbonate thickness 16 mm
 - Opaque hood
- Options:
 - Position switch

3 Features:

3.1 General characteristics of Operated Safety Devices (SARs) :

- A D.A.S. must not issue an order
- Devices for checking the safety and/or waiting positions of the D.A.S.
- Unblocking energy external to the D.A.S.
- Functional independence of the self-control and remote control
- No remote reset if passing in safety position by self-control
- Rearmament by remote control only if the energy to the previous rearmament has been interrupted
- End-of-life damping
- Type B or type A if height of the component to be handled less than or equal to 2.50 m from the ground

1 : Natural Smoke and Heat Evacuation Device

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3.2 General characteristics of the constituents:

- Control of the positions of the D.A.S (if presence of a position contactor).
- Class III for electrical equipment operating under very low safety voltage (TBTS)
- Isolation of electrical circuits in TBTS and electrical circuits of other equipment
- Minimum protection class IP 42
- Presence of the main connecting device
- Specific TBTS connection device
- Operation of the traction stop device
- Minimum electrical characteristics of position contacts
- Independence of control electrical circuits with other circuits
- Test pressures of pneumatic equipment
- Electromagnetic trigger operating characteristics

4 Reception – storage:

Make sure in the presence of the carrier that the window is not cracked or broken by opening in the center of the package.

In case of deterioration of the packaging, carry out a complete check of the outlet (a reservation a posteriori will not be accepted).

Storage is preferably carried out in the transport position and in the original packaging away from bad weather and dirt.

5 Unpacking – handling:

Take care not to scratch the faces of the profiles with a cutting tool. Proceed through the chassis edge. Handle the whole by the glazing using suction cups in accordance with the safety instructions of use.

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6 The range:

The Skybaie® entry characteristics are available on the CE marking label affixed to the sheet and are visible with the open chassis.

The opening angle of the SKYBAIE varies according to the dimensions and the two-cylinder strokes 600 and 800 available depending on the height of the chassis. The opening angles below are calculated for a maximum opening weight of 70kg.

		Width																	
		800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	
Race 600	HIGH	700	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
		800	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°
		900	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°
		1000	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°
		1100	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°
		1200	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°
Race 800	EUR	1300	/	/	/	/	40°	40°	40°	40°	40°	40°	40°	40°	40°	40°	/	/	
		1400	/	/	/	/	40°	40°	40°	40°	40°	40°	40°	40°	/	/	/	/	
		1500	/	/	/	/	30°	30°	30°	30°	30°	30°	30°	/	/	/	/	/	
		1600	/	/	/	/	30°	30°	30°	30°	30°	/	/	/	/	/	/	/	
		1700	/	/	/	/	30°	30°	30°	30°	30°	/	/	/	/	/	/	/	

Control voltage : U : 24Vdc -15% to +20%

Control Intensity : I: 1A for devices ≤ 1600 in length
2A for devices with a length > 1600

7 Determination of opening surfaces

Geometric surface

The geometric surface is the surface released by the opening, at the level of the dormant frame.

$$SGO \text{ (in dm}^2\text{)} = Lpa \times Hpa / 10000$$

Free surface

In accordance with §3.4 of NF S 61937-8: 2010, the free surface of the opening corresponds to the actual surface of air passage, less than or equal to the geometric surface of opening, considering any obstacles provided that the degree of opening of the opening is at least 60°, in the case of tilting or swivelling openings.

Regardless of the type of opening no obstacle is present (except the leaf itself) in the geometric surface of opening.

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Calculated free area

In accordance with § 3.5 of NF S 61937-8: 2010, the calculated free surface is the smallest value obtained between the inner geometric surface of the opening (= geometric opening surface indicated in § 4.3.7.1) and the tensile surface which rests on the one hand on the dormant frame and on the other hand on the parts closest to the opening when it is in the open position.

The tensile surface which rests on the one hand on the frame and on the other hand on the parts closest to the opening when it is in the open position is defined by the following formula:

$S = (Lpa \times Hpa \times \sin \alpha) + (Hpa \times \cos \alpha) \times (Hpa \times \sin \alpha)$ with α which is the opening angle of the opening.

This formula is valid only in the absence of obstacles and subject to meeting the following criteria:

- The vertical surface between the upper part of the opening in the open position and the ceiling must be at least equal to the stretched surface between opening and frame.
- No lateral obstacle shall be located at less than $Hpa/2$ from the device. The space between openings must also be less than the same distance.

8 Rules for the installation and implementation of the SKYBAIE:

Caution: Any maneuver that may damage the mechanisms and/or structure of the DENFC is prohibited. SKYDOME® cannot be held responsible for the impact of such maneuvers.

8.1 Support:

The support receiving the DENFC must be flat, within the normative tolerances of building construction.

8.2 The installation of the DENFC:

The SKYBAIE must be placed at an angle of 0° , with respect to the vertical and square.

The installation must follow the recommendations of the DTU in force

The support must respect a flatness of ± 2 mm

Warning: the device must be installed according to the ns, technical instructions, and any rules or texts in force.

8.3 Opening of the opening for fixing the SKYBAIE:

The opening is held closed by the electric cylinder. Using two batteries 12V – 1.5Ah mounted in series, connect the white wire to the (+) and the brown wire to the (-).

If the controls are not immediately operational, reverse the polarity and close the device.

DO NOT leave batteries plugged in for more than 5 minutes.

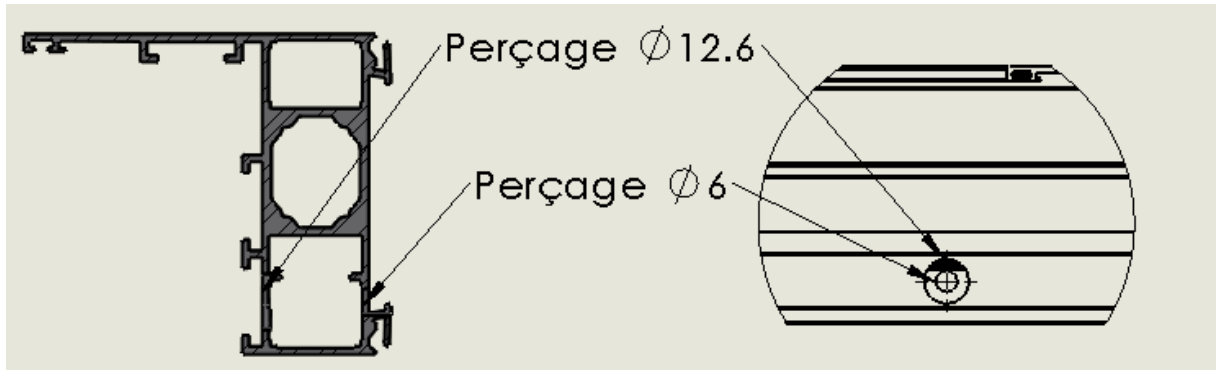
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8.3.1 Installation of the electric SKYBAIE:



Drilling is provided in the SKYBAIE to fix the frame on its support (see image above).

- *Horizontal attachment only to the high crossmember:
From 700mm to 2400mm → 2 fasteners
Do not settle in the low dormant profile.*
- *Fixing on the two amounts:
From 800 mm to 1,200mm → 2 fasteners*

8.4 Assembly and connection

The device comes with a minimum of 3 m of cables and a junction box. The connection to the control device shall be made in this bypass box.

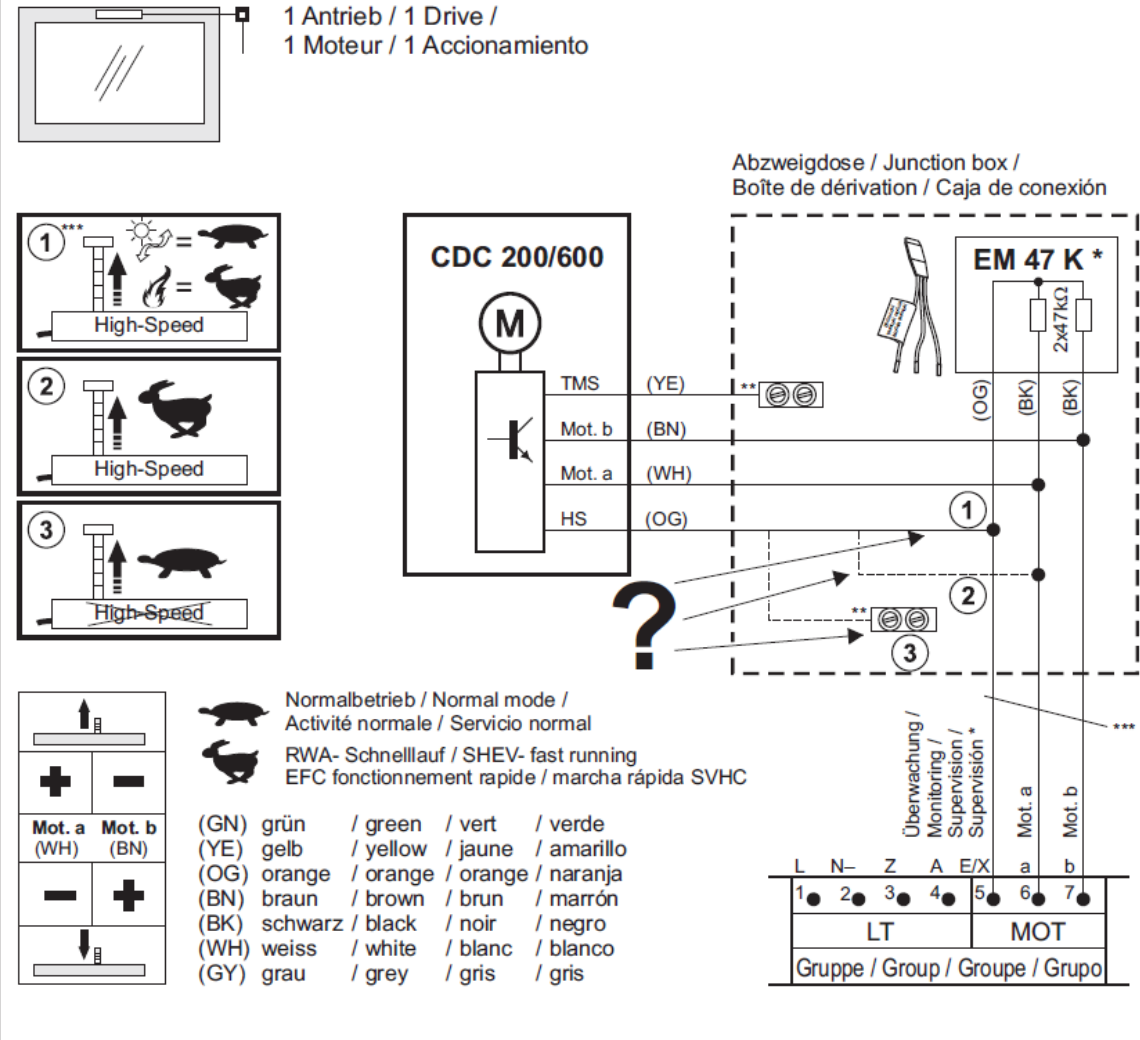
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Anschluss / Connection / Raccordement / Conexión



CAREFUL:

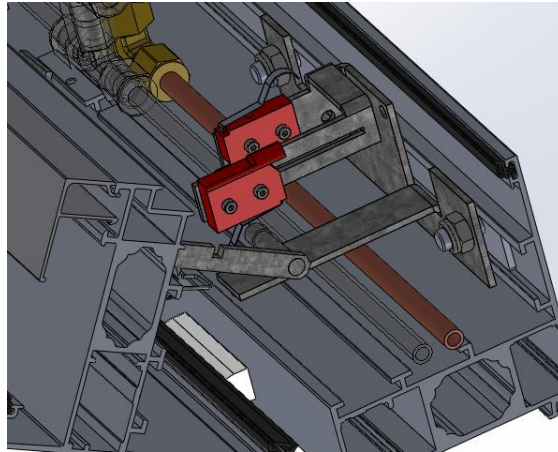
For the use of the SKYBAIE in smoke extraction the connection must be imperatively in High-Speed



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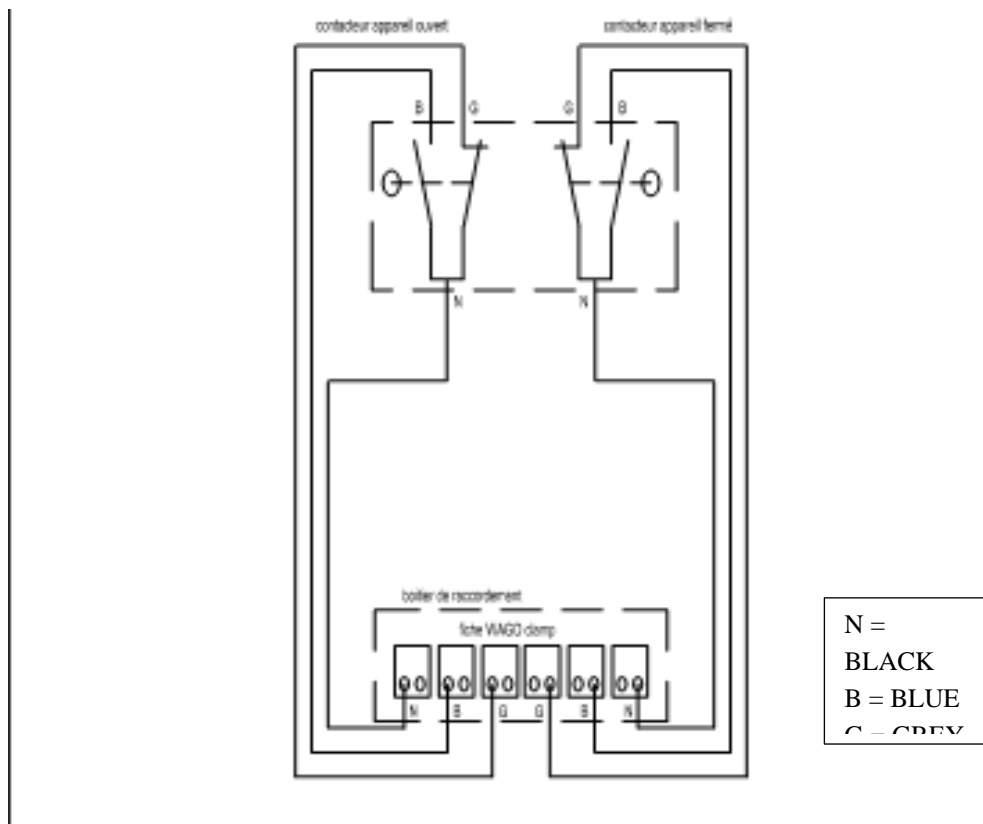
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9 Position switch



9.1 Connection of position switches:

The connection (connection) of the contactors, is carried out as illustrated in the electrical diagram below.





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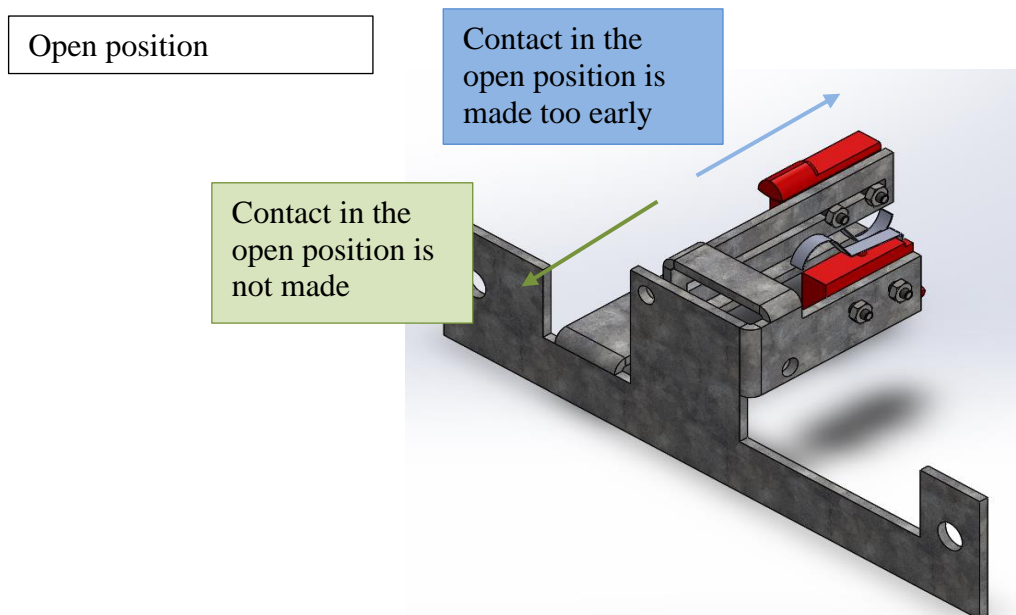
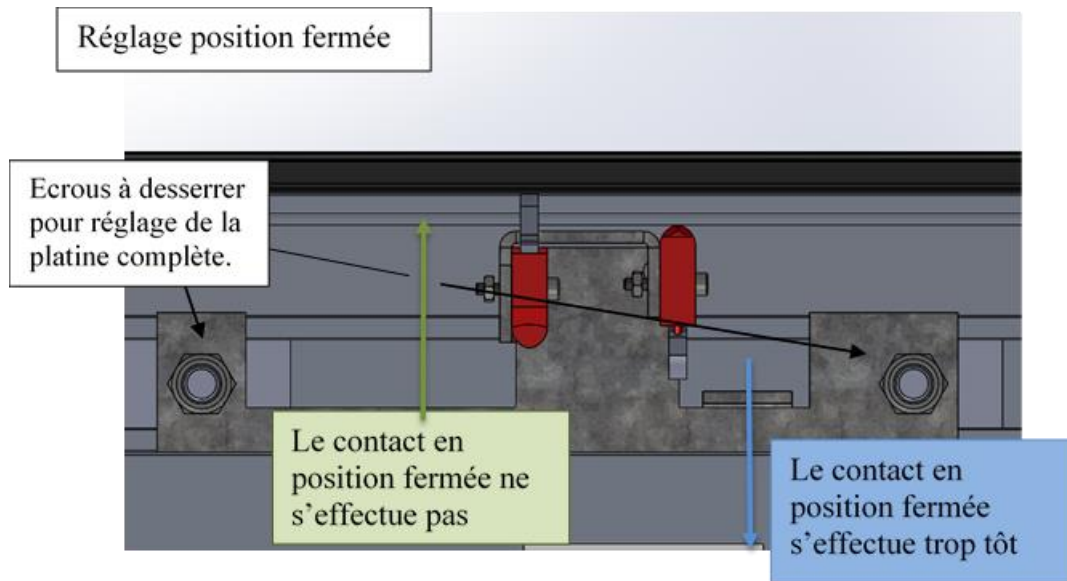
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- Position contactor adjustment:

The adjustment of the position contactors is to be refined once the chassis is installed in its final position and the electrical connection made to the cabinet or central. A visual signal must confirm the contact on them (refer to the instructions of your cabinet or central)

In the closed position, the ignition setting is preset. If, however, the detection is carried out too early or not at all, it is possible to adjust the height of the complete contactor block. The signal must be received at the very end of the opening ($\pm 2^\circ$ of the end of the closure)

In the open position and as appropriate, adjust the contactor in the open position as follows. The signal must be received at the very end of the opening ($\pm 2^\circ$ of the end of the opening).





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10 Maintenance information

Please note: our devices are not warranted for an exhibition that may alter the initial characteristics of an element or function of the DENFC.

The operation, maintenance and periodic verification operations will be carried out according to the requirements of the texts and standards in force as well as the following SKYDOME® requirements:

- Proceed at least 2 times a year to the opening/closing in a safe position of the DENFC.
- Verification operations:
 - Check more particularly the condition of the joints, hinges,
 - Control the tightening of the screwed elements.
 - Do not clean the cylinder chain with a solvent, as it can damage the joints.
 - Do not paint the cylinder chain.
 - Clean drainage channels
 - Check the condition of the seals.
- DENFC verification operations must be carried out at least 1 time per year.

- Contactor maintenance

Please note: our position switches are not guaranteed in the context of an exhibition likely to modify the initial characteristics of an element or a function thereof.

The operation, maintenance, and periodic checks of all SKYDOME position contactors will be carried out in accordance with the requirements of the texts and standards in force as well as the SKYDOME® requirements. The correct functioning of the contactor must be checked during each maintenance operation of the device or when doubts arise as to the accuracy of the information sent by the latter. A visual signal must confirm the contact on the cabinet or central connected to the contactor (refer to their instructions).

- SKYDOME® requirements: check the operating sets, contact settings, fasteners, wear of rotating parts.

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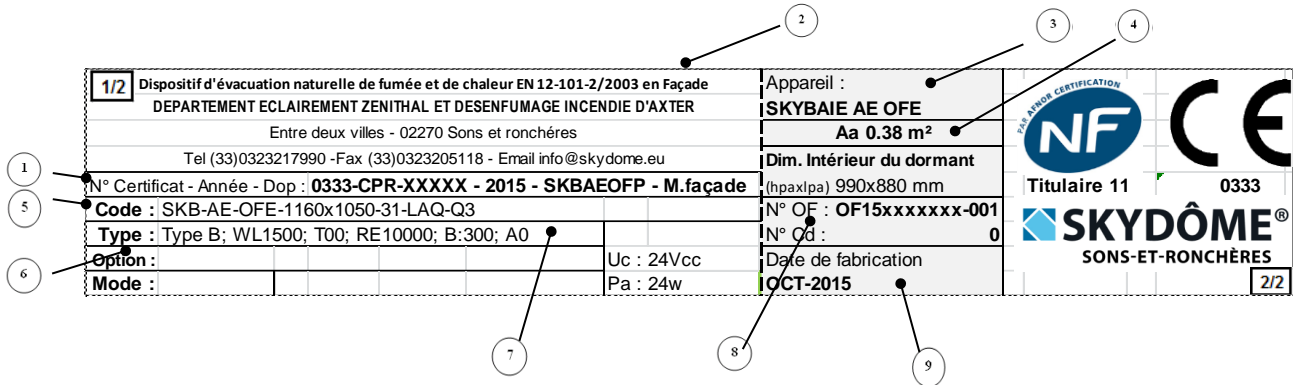
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11 Replacement

All components of the device are available on request from SKYDOME.®

12 Product marking



- ① Number of the certificate, its date of obtaining, D.O.P. number, type of assembly.
- ② Reference standard in effect.
- ③ Trade description of the device.
- ④ Internal frame dimension (hpa x lpa) and Useful Aperture Area (Aa).
- ⑤ Item code (for device traceability).
- ⑥ Description of security options
- ⑦ Respectively:
 - Type of opening of the natural smoke and heat evacuation device.
 - Classification of wind load.
 - Ambient temperature classification.
 - Reliability classification.
 - Heat resistance classification.
 - Reaction to fire classification of the materials constituting the DENFC, according to the European standard in force.
- ⑧ Production order number
- ⑨ Date of manufacture of the device

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