



# Installation and maintenance instructions

SKYBAIE® Open only

**Designation and commercial reference:** SKYBAIE® Opening only

**Certificate No.** : 0333 CPR 219 086

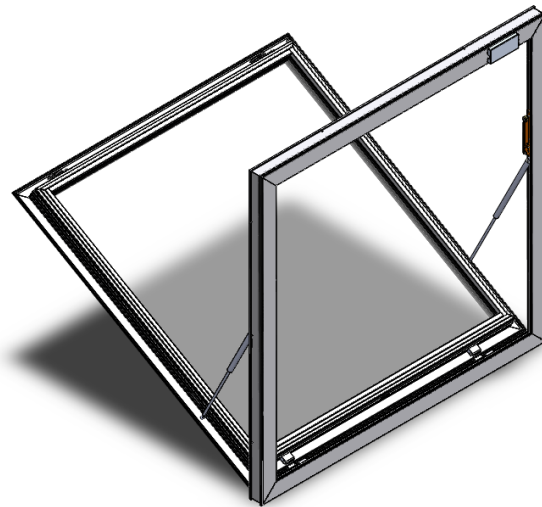
**DOP:** SOP (pneumatic) / SOE (electromagnetic) / SOM (manual)

**Year of certificate:** 2015

**Reference standard NF :** EN 12101-2 / NF S 61-937-1 / NF S 61-937-7 /  
NF S 61-937-8-(except manual triggering)

**Certification rule:** CE 219 / NF 537

**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



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 527 **RTH ES Certification**

Page 1 on 13	Ref: NIE 086- 4 SKYBAIE® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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# Installation and maintenance instructions

SKYBAIE® Open only

## Table of Contents

- 1. Identification: ..... 3
- 2. Possible variants in the range: ..... 3
- 3. Characteristics : ..... 3
  - 1. General characteristics of Operated Safety Devices (SARs):..... 3
  - 2. General characteristics of constituents:..... 4
  - 3. Wind load classification:..... 4
- 4. Receiving –Storage: ..... 4
- 5. Unpacking – handling:..... 4
- 6. The range :..... 5
  - 1. Mechanical trigger input data ..... 5
  - 2. Electrical trigger input data ..... 5
  - 3. Pneumatic trigger input data ..... 5
- 7. Determination of opening surfaces ..... 5
- 8. SKYBAIE installation and implementation rules: ..... 6
  - 1. Support:..... 6
  - 2. The installation of the DENFC: ..... 6
  - 3. Opening the opening:..... 7
  - 4. Setting up the SKYBAIE:..... 8
  - 5. Assembly and connection..... 9
- 9. Position contactor ..... 10
- 10. Maintenance instructions..... 12
- 11. Spare..... 13
- 12. Marking of the product ..... 13



# Installation and maintenance instructions

## SKYBAIE® Open only

### 1. Identification:

Range Name :SKYBAIE ®

Commercial reference: SKYBAIE ® opening only

Type of DENFC Assembly: Facade <sup>1</sup>  
Roof

Product certifications: CE  Yes  No  
NF  Yes  No

Descriptive:

The SKYBAIE ® opening only is a façade frame for smoke and heat evacuation and natural ventilation, opening at an angle of 60° -5°+10°. It works by embodied energy within the meaning of standard NF EN 12101-2. The availability of the energy source must be ensured.

### 2. Possible variants in the range:

- Chassis:
  - Aluminium frame and opening
- Fills:
  - Glass
  - Cellular polycarbonate thickness 16 to 56 mm (transparent, opal, opaque)
  - Opaque hood
- Opening weight:

The weight of the maximum opening with its filling  $\leq 70$  kg
- Options:
  - Position switch
  - Air intake

### 3. Characteristics:

#### 1. General characteristics of Safety Actuated 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

<sup>1</sup> : Natural Smoke and Heat Evacuation Device

Page 3 on 13	Ref: NIE 086- 4 SKYBAIE ® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
-----------------	--	--	--



# Installation and maintenance instructions

## SKYBAIE® Open only

### 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

### 3. Wind load classification:

- The DENFC must be classified in the following category: WL 1500  
*The designation 1500 represents the test wind load expressed in Pa. :*

### 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.

Page 4 on 13	Ref: NIE 086- 4 SKYBAIE ® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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# Installation and maintenance instructions

## SKYBAIE® Open only

### 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.

#### 1. Mechanical trigger input data

Maximum rearmament force  $\leq 100$  daN  
cable travel about 30mm

#### 2. Electrical trigger input data

Emission 24VDC  $\pm 10\%$ , 3W  
Emission 48VDC  $\pm 10\%$ , 3W  
Break 48VDC  $\pm 10\%$ , 1.2W  
24VDC break  $\pm 10\%$ , 1.2W

#### 3. Pneumatic trigger input data

Opening pressure 7 bar  
Consumption 0.6 NI

### 7. Determination of opening surfaces

#### Geometric surface

The geometric surface is the surface released by the opening, at the level of the dormant frame.  
 $SGO$  (in  $dm^2$ ) =  $Lpa \times Hpa / 10000$

#### 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  $60^\circ$ , 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.

Page 5 on 13	Ref: NIE 086- 4 SKYBAIE ® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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# Installation and maintenance instructions

## SKYBAIE® Open only

### 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  $\alpha$  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. SKYBAIE installation and implementation rules:

*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.*

### 1. Support:

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

### 2. The installation of the DENFC:

The SKYBAIE must be placed at an angle of  $0^\circ$ , 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  $\pm 2$  mm

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

Page 6 on 13	Ref: NIE 086- 4 SKYBAIE ® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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# Installation and maintenance instructions

## SKYBAIE® Open only

### 3. Opening of the opening:

The opening is kept closed by a locking system integrated into the SKYBAIE.

#### **For tunnel installation:**

Cut the grab strap as shown in the illustration below.

Unlock the lock(s) using the string or strings protruding from the glued device with labels on the glazing. If the string is not usable, holes are provided **on the inner** and upper side of the chassis allowing a screwdriver to pull on the plastic collar(s) while pushing on the opening. The opening opens partially and frees access to the fixing pre-drilling.

Once the chassis is attached, cut completely and remove the strap.

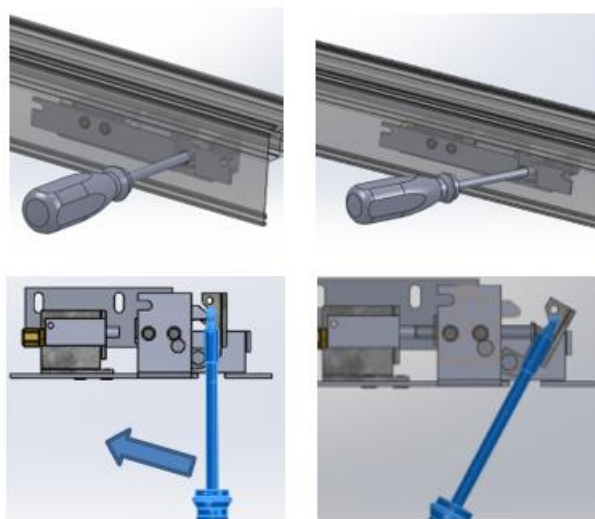
In case the servo is not done right away, close the device manually until it locks.



#### **For a wall application:**

Attach the opening with fixing tabs

Cut the strap completely and remove it.

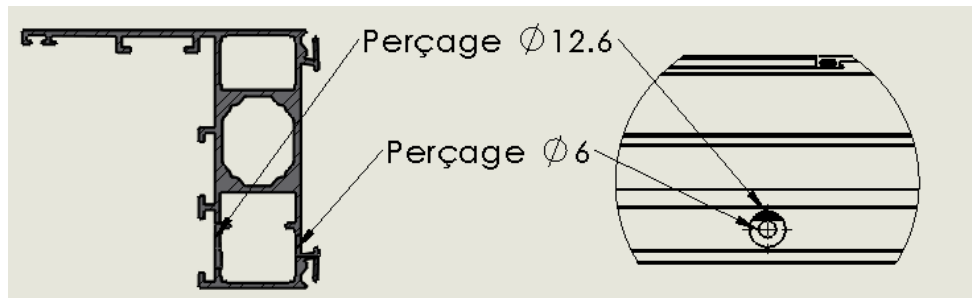




# Installation and maintenance instructions

## SKYBAIE® Open only

### 4. Implementation of the SKYBAIE:



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

- *Attachment only on the high crossmember:  
From 500mm to 599mm → 1 attachment  
From 600mm to 2400mm → 2 fasteners  
**Do not settle in the low dormant profile.***
  
- *Fixing on the two amounts:  
From 500mm to 649mm → 1 attachment  
From 650mm to 1449mm → 2 fasteners  
From 1450mm to 1600mm → 3 fasteners*

Page 8 on 13	Ref: NIE 086- 4 SKYBAIE © Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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# Installation and maintenance instructions

## SKYBAIE® Open only

### 5. Assembly and connection

#### a) Pneumatic trigger

The SKYBAIE OUVERTURE ONLY comes with an indoor pneumatic network. The device also has inputs for your copper at a high corner of **the opening on the front** as well as on the sides.

A bag composed of angled brass, union fittings, lacquered caps to the shade of your opening and grommets Ø6 for brass and Ø10 for holding the caps is provided to help you with installation and finishing.

#### b) Electrical triggering

The connection is made in a junction box connected to the outside of the opening with a 3ml output cable

#### c) Manual triggering

15 meters Of cable are provided for the connection of the device to the control box.

#### d) Tests / Verifications

Once the device is mounted and connected, test some openings and closures to ensure the proper functioning of the device and the tightness of the copper network.

Remove the string attached to the lock(s).

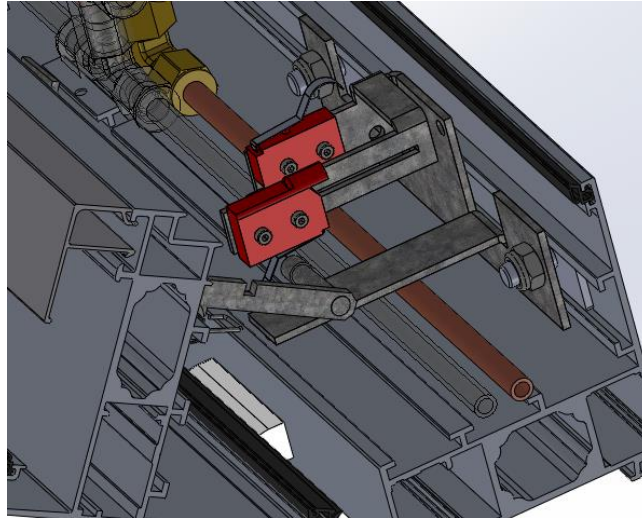
Page 9 on 13	Ref: NIE 086- 4 SKYBAIE ® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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# Installation and maintenance instructions

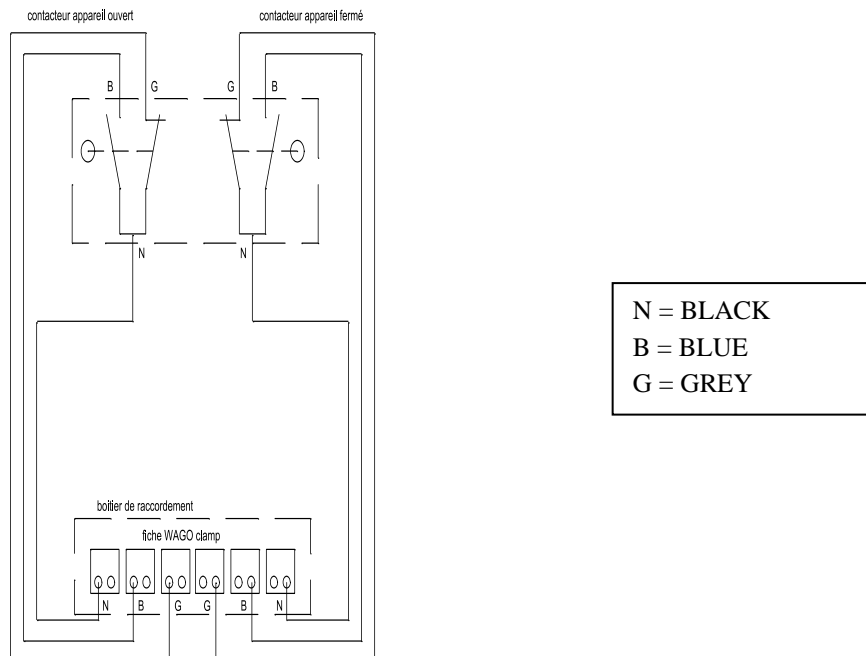
SKYBAIE® Open only

## 9. Position switch



- Connecting position contactors:

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





# Installation and maintenance instructions

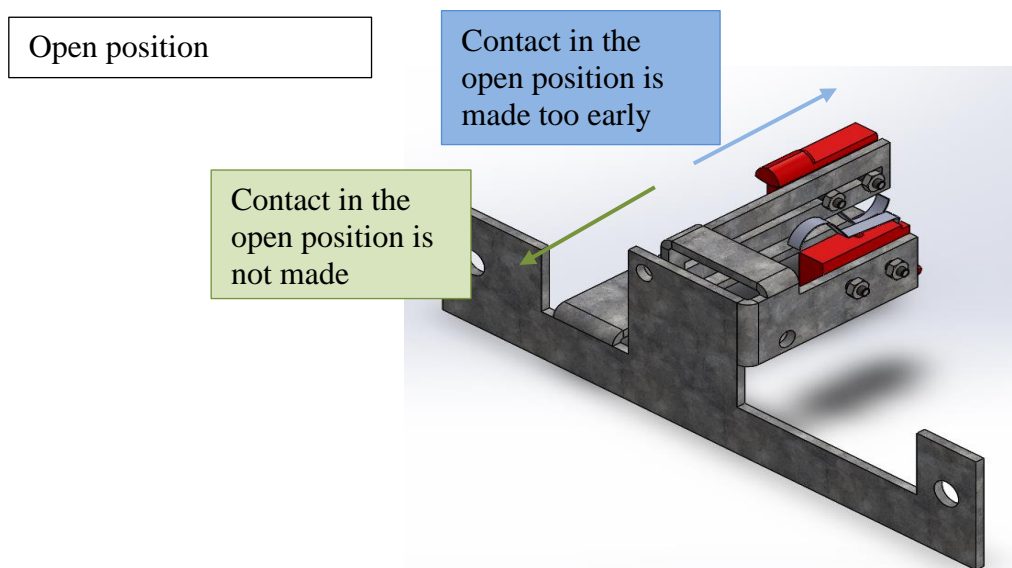
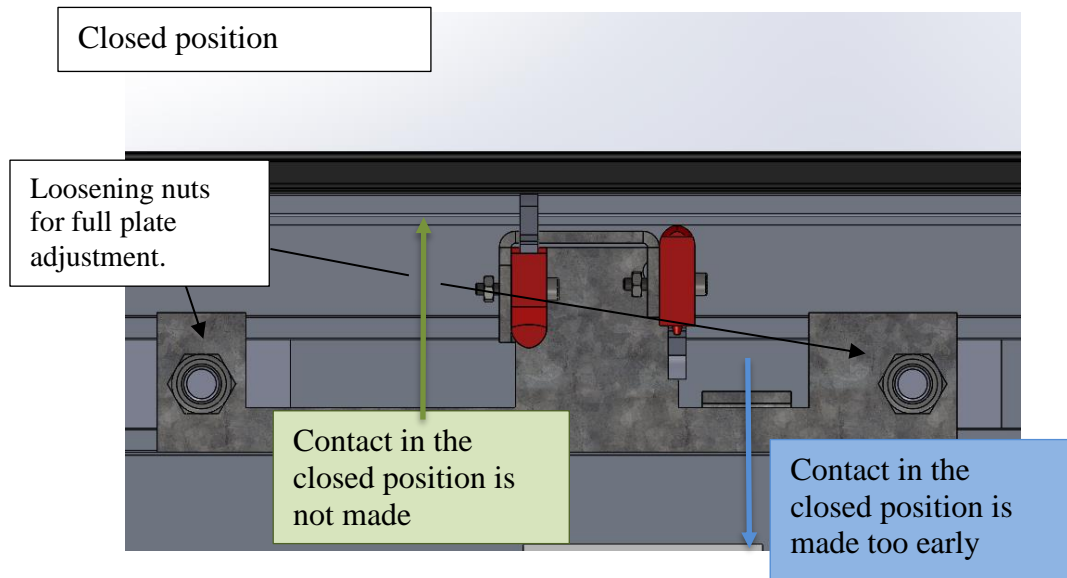
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- Position contactor adjustment:

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).





# Installation and maintenance instructions

SKYBAIE® Open only

## 10. Maintenance instructions

*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 in particular the condition of the joints, hinge, cylinder rod and ejector. It is important to keep these elements lubricated (grease, oil), except the cylinder rod.
  - Control the tightening of the screwed elements.
  - Do not clean the cylinder stem with a solvent, as it can damage the joints.
  - Do not paint the stem of the cylinder.
  - Clean drainage channels
  - Check by manual opening that the joints are not glued.
- 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.

Page 12 on 13	Ref: NIE 086- 4 SKYBAIE ® Opening only Updated: 02/08/2022	SKYDOME Factory Entre-deux-Villes 02270 Sounds-and-Ronchères Phone : 03 23 21 79 90	
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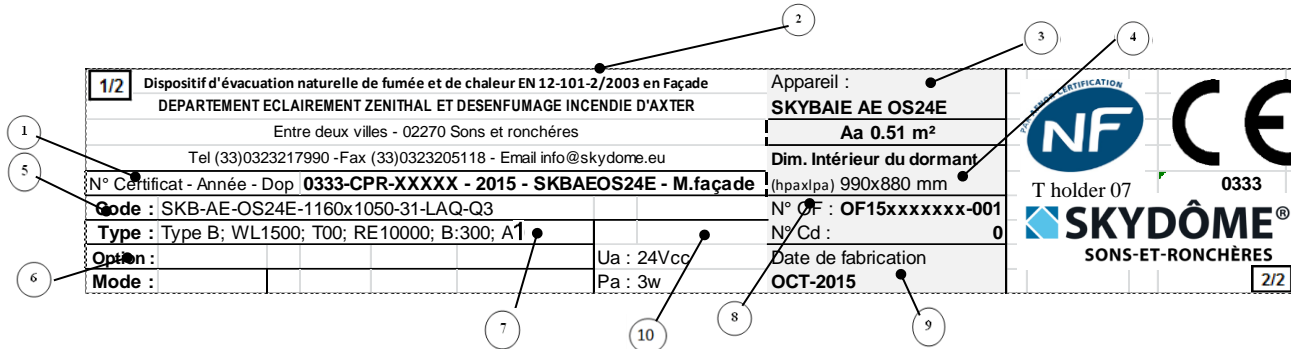
# Installation and maintenance instructions

## SKYBAIE® Open only

### 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 Internaldimensions of the frame (Ipa x hpa) 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
- 10 Characteristic of remote control and power inputs (see paragraph 6).