



# Installation and maintenance instructions

Pyrodome Electrical Evolution

**Designation and commercial reference:** Pyrodôme Evolution Electric

**Certificate No.** : 0402-CPR-C500026

**DOP No:** PEE

**Year of certificate:** 2020

**Reference standard:** NF EN 12101-2

**Warning:** This notice cannot constitute a contractual document; the manufacturer reserves the right to make without notice any modification he deems useful.



**Certifying body:**  
RISE Research Institutes of Sweden  
Division Safety and Transport - Safety  
Box 857, 501 15 Borås, Sweden



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### 1. Identification

#### 1. Type of DENFC (Natural Smoke and Heat Evacuation System)

DENFC mounted on the roof.

#### 2. Type of range

A simple smoke extraction opening of the PYRODOME® EVOLUTION ELECTRIQUE range

#### 3. Type of energy

DENFC powered by internal and/or external electrical energy within the meaning of standard NF EN 12101-2. The availability of the energy source must be ensured.

#### 4. Possible variants in the range

- Costières:
  - Right rib
  - Styling Costume
  - Costière bias
  
- Fills:
  - Honeycomb polycarbonate cover thickness 10 to 32 mm
  - Single, double and triple dome PMMA and full PC
  - Aluminum cover
  - Acoustik'light
  
- Options:
  - Ventilation (about 20°) control by cabinet
  - Fall arrest bar and/or burglary delay
  - Holding stock
  - Ladder hanger bar



### 2. Characteristics

#### 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

#### 2. General characteristics of the constituents:

- Control of the positions of the D.A.S.
- 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
- Independence of control electrical circuits with other circuits
- Test pressures of pneumatic equipment
- Electromagnetic trigger operating characteristics

### 3. Precautions on the support


1. The support receiving the DENFC must be flat, within the normative tolerances of building construction.
2. The installation of the DENFC is carried out according to one of the following two rules:

#### a) *Rule 1*

*The maximum slope allowed when the axis of articulation is parallel to the roof slope and the geometric side ( $A_v$ ) is  $<$  to  $2m^2$ , is  $25^\circ$  or 46.65%.*

*The maximum slope allowed when the axis of articulation is parallel to the roof slope and the Geometric surface ( $A_v$ ) is  $>$  to  $2m^2$ , is  $20^\circ$  or 36.45%.*



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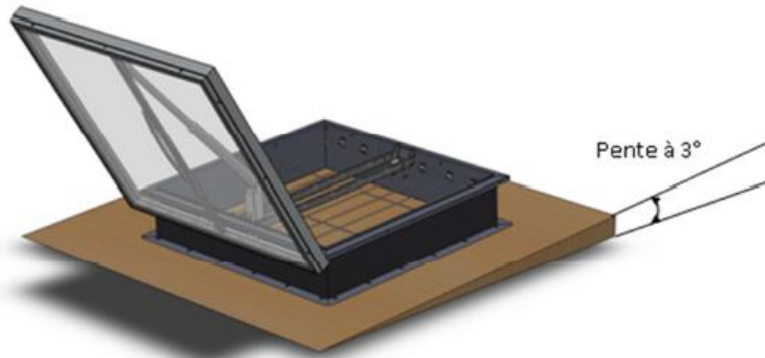
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### b) Rule 2

*The maximum slope allowed when the axis of articulation is perpendicular to the roof slope is 3° or 5.25%.*

*In this case, the hinges are positioned at the bottom of the slope.*



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

## 4. Explanation of the product marking code

<small>DEPARTEMENT ECLAIREMENT ZENITHAL ET DESENFUMAGE INCENDIE D'SKYDÔME SAS Entre deux villes - 02270 Sons et Ronchères Tél: (33) 03.23.21.79.90 - Fax: (33) 03.23.21.78.23 - Email: info@skydome.eu</small>	
1	N° certificat : 0402-CPR-C500026 - 2020 - CPU - M.toiture
2	NF EN 12101-2 2003 Dispositif d'évacuation naturelle de fumées et de chaleur
3	PYRODOME EVOLUTION ELE 
4	Aa0,78 m <sup>2</sup>
5	TypeB; WL1500; SL250; T00; RE1000; B300; B-s1, d0
8	Option de sécurité : TGrd6
6	OF210101948.001 Code : RC-CPUG007070510-C 7
	Date de fabrication : JANVIER 2021 9


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- 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 Hopper size and Useful Aperture area (Aa).
- ⑤ Respectively:
  - Type of opening of the natural smoke and heat evacuation device.
  - Classification of wind load.
  - Classification of snow 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.
- ⑥ Manufacturing order number.
- ⑦ Item code (for device traceability).
- ⑧ Description of security options:
  - Trigger temperature for hot melt option.
  - Presence or absence of a position switch.
- ⑨ Date of manufacture of the device.

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### 5. The range

The input characteristics of the device are available on the CE marking label on the inside front of the costière. Below is the summary table of the air consumption according to your device and the snow load (SLxxx).

Dimension		SL250		SL 500		SL 800		SL 1000		SL 1500	
cm x cm		24V	48V	24V	48V	24V	48V	24V	48V	24V	48V
<b>100</b>	100	4A	2A	4A	2A	4A	2A	4A	2A	6A	3A
<b>100</b>	150	4A	2A	4A	2A	4A	2A	4A	2A	6A	3A
<b>100</b>	200	4A	2A	4A	2A	4A	2A	4A	2A	6A	3A
<b>120</b>	120	4A	2A	4A	2A	4A	2A	4A	2A	8A	4A
<b>120</b>	200	4A	2A	4A	2A	6A	3A	8A	4A	8A	4A
<b>120</b>	250	4A	2A	4A	2A	8A	4A	8A	4A	12A	6A
<b>140</b>	140	4A	2A	4A	2A	4A	2A	6A	3A	8A	4A
<b>140</b>	200	4A	2A	4A	2A	8A	4A	8A	4A	12A	6A
<b>150</b>	150	4A	2A	4A	2A	6A	3A	8A	4A	8A	4A
<b>160</b>	160	4A	2A	4A	2A	8A	4A	8A	4A	12A	6A
<b>180</b>	180	4A	2A	12A	6A	12A	6A				
<b>200</b>	195	6A	3A	12A	6A	12A	6A				



## 6. Installation and implementation

### 1. The installation of the device

*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.*

### 2. Implementation of PYROMAX® according to its support

- *Trimmer:* Through self-piercing screws or rivets or others  
Bolts respecting a **maximum distance between 2 fasteners of 330 mm.**
- *Ribbed steel sheets:* Through self-drilling screws or rivets or the like  
Bolts respecting a **maximum distance between 2 fasteners of 330 mm.**
- *Masonry support:* Through adapted fastenings respecting a **center distance Maximum between 2 fasteners of 200 mm.**


The insulation that may be present on the DENFC includes a bituminous film designed to receive leakage readings directly.

### 3. Installation of the PYRODOME® in enhanced version

The distance requirements described above are identical for the raised version subject to installation on a suitable existing support, i.e. steel, concrete, wood, or any other material which has already passed the thermal deformation test.

The geometric surface ( $A_v$ ) of the existing support costing must be greater than or equal to the geometric surface of the capping cost.

The smoke extraction DENFC must be fixed and sealed according to the requirements defined in the waterproofing D.T.U. (Unified Technical Document) in force.

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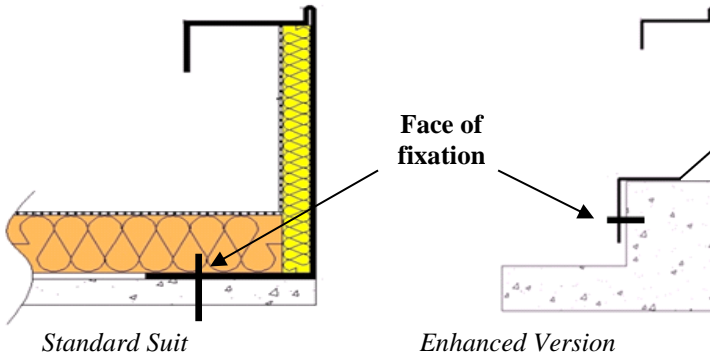




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### 4. Schematics for fixing an apparatus according to its version

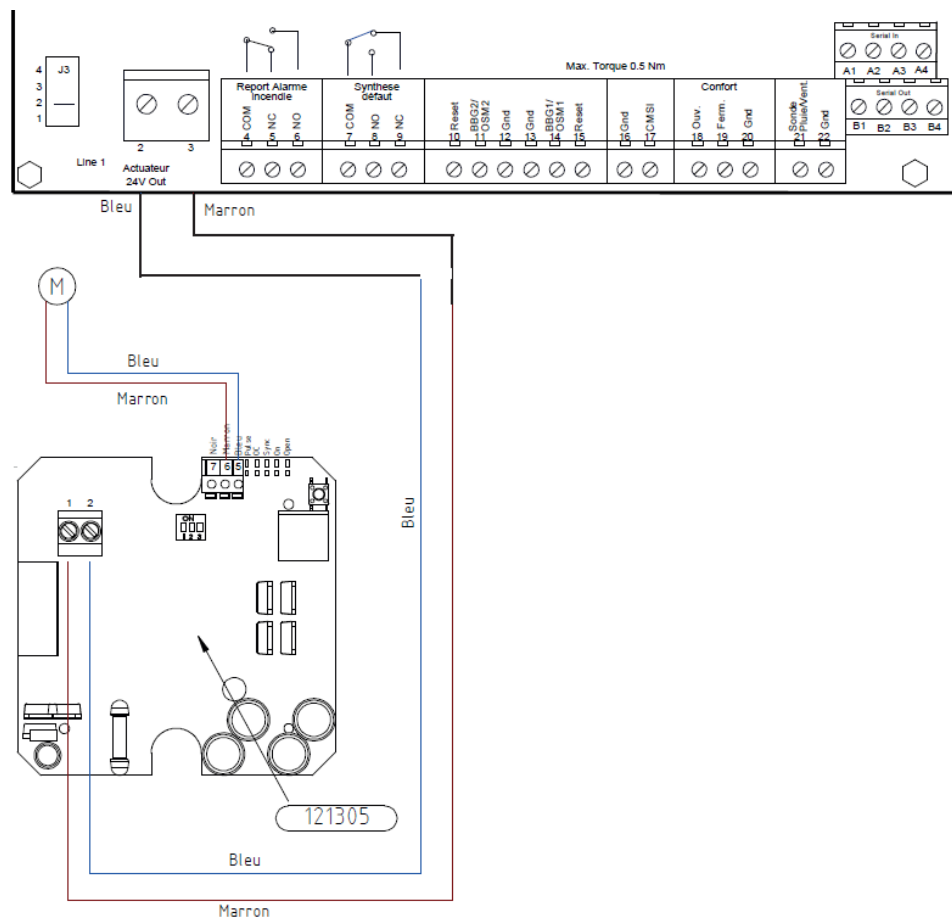


Allother places for attachment may Cause water leakage.

### 5. Assembly and connection

The device comes pre-wired at the factory.

For connecting the DENFC and its options to the power supply: refer to the current standard and the following wiring diagram.



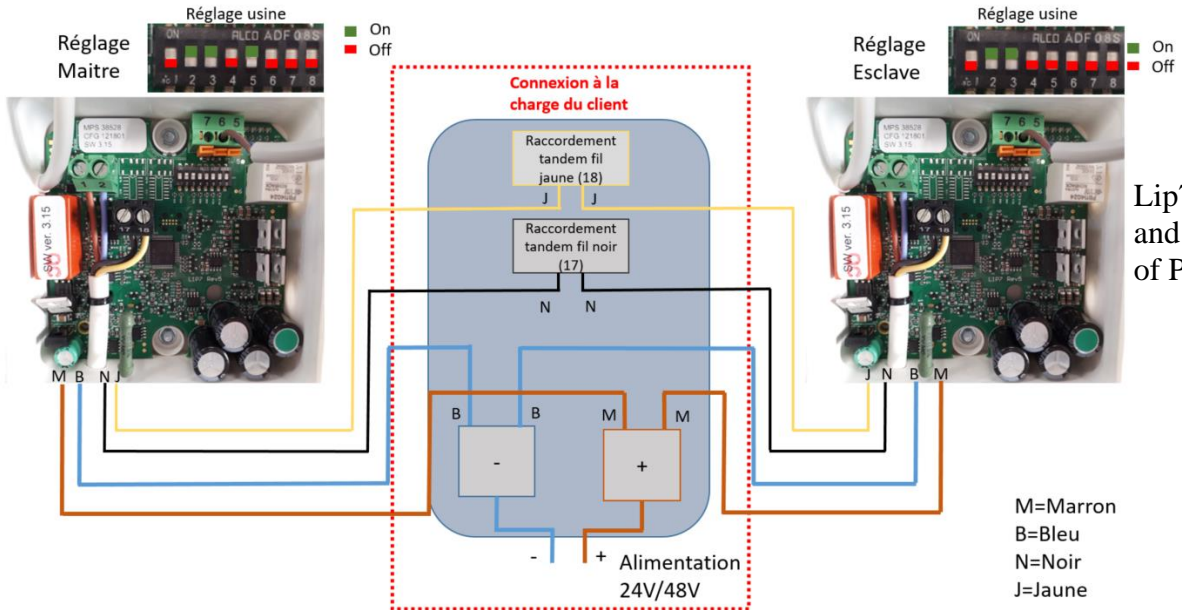
Independent engine



Simplified wiring diagram Tandem connected motors

Câblage Traverses ACTULUX en Tandem

Lip7: limit and switch of Power



Lip7: limit and switch of Power

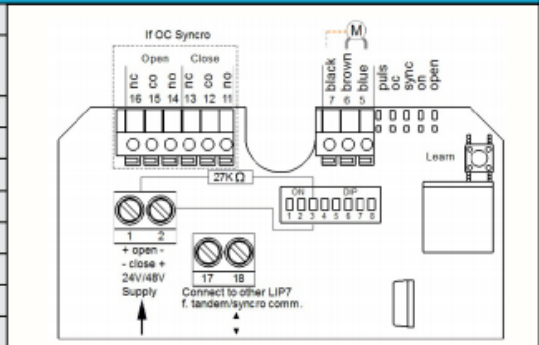
**RACCORDEMENTS ET PARAMÈTRES**

DIP switch	off	on	Fonction	Paramètres*				
1	<input type="checkbox"/>	<input type="checkbox"/>			OFF	ON	ON	OFF
4A / 24 VDC			Max. courant moyen. (Veuillez noter que ceci n'est qu'un exemple - peut varier selon les différents types de systèmes d'ouverture)	24V	2A	3A	2,5A	4A
				36V	1,5A	2,25A	1,9A	3A
				48V	1A	1,5A	1,25A	2A
2	<input type="checkbox"/>	<input type="checkbox"/>			OFF	OFF	ON	ON
3	<input type="checkbox"/>	<input type="checkbox"/>	OFF = No 27kΩ pour surveillance de ligne	ON = 27kΩ pour surveillance de ligne à 2 fils ( terminaux 1 & 2 )				
↓ Seulement disponible pour LIP7 TA and LIP7 OC ↓								
4	<input type="checkbox"/>	<input type="checkbox"/>	OFF = Stand Alone mode ( Seulement 1 système / LIP)	ON = Mode Communication ( monter les dips sur ON sur les 2 systèmes / LIPs)				
5	<input type="checkbox"/>	<input type="checkbox"/>	OFF = Slave	ON = Maître ( monter ON sur un système/LIP uniquement)				
6	<input type="checkbox"/>	<input type="checkbox"/>	OFF = Mode Synchro = Vérins à 3 fils	ON = Mode Tandem = vérins à 2 fils				
7	<input type="checkbox"/>	<input type="checkbox"/>	OFF = Aucune temporisation entre le Maître et l'esclave	ON = 7 secondes de temporisation entre le maître et l'esclave				
8		N/A						

(\*) Veuillez noter que les paramètres d'alimentation ci-dessus sont standard - peuvent également être adaptés à des acteurs Actulux spécifiques

**DONNEES TECHNIQUES**

Tension d'alimentation: 24-36-48VDC +/- 15%, Max. Ondulation: 2 Volt PP  
 Résistance d'entrée: via le DIP, possibilité de connecter une résistance de 27 kΩ sur les bornes d'entrée de l'alimentation de la surveillance de ligne  
 Courant maximum dans le relais de position: 30VDC / 2A  
 Dimensions (l x b x h): 100 x 100 x 50 mm  
 Matière: Plastique blanc  
 Compatible avec les versions de LIP précédentes  
 Indice de protection: IP54  
 Longueur câble silicone: Standard 85 cm  
 Certificats: En conformité: EN12101-2/EN60335-1/EN50130-4 Marquage: CE  
 Références: 121305 (Basis) / 121306 (Tandem) / 121308 (OC Open/Close)





### 7. Instructions for use

- For commissioning, ensure that the supply voltage is in line with the values defined in the table in paragraph 5. **The range.**
- Carry out a test(s) to verify the proper functioning of the DENFC. A total opening and closing of the device by checking that no element hinders the trajectory of the opening or its mechanism.

### 8. 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, hinges, verror as well as the stem of the cylinders. It is important to keep these elements lubricated (graise, oil), except the rod of the cylinders.
  - Control the tightening of the screwed elements (fixing the mechanism, etc. ).
  - Check the effectiveness of the locking system.
  - When the rod of an electric or oleopneumatic cylinder is scratched, deformed or shows signs of any other deterioration, replace it.
  - Do not clean the cylinder rod with a solvent, as this may damage it.
  - Do not paint the stem of the cylinders.
  - If necessary, clean the gasket(s) of the appliance and their support locations.
- DENFC verification operations must be carried out at least 1 time per year.

### 9. Replacement

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

### 10. Options

The ventilation option is provided by the opening system itself. It does not in any way detract from the smoke extraction function of the natural smoke and heat evacuation system.

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