

# ARCALAM<sup>®</sup>

CE  
EN 12101-2  
EN 1873 + A1: 2016

## Évolution Électrique

### **VERSION**

The ARCALAM<sup>®</sup> ÉVOLUTION ÉLECTRIQUE is an NSHEV capable of natural smoke exhaust and comfort ventilation functions. It can be installed on multiple substrates, including flat roofs with a waterproofing complex, tiled or slated roofs, steel decks, sawtooth roofs and glazed canopies (at an inclination of 5° to 60°).



#### Types of filling

##### ORIGIN' RANGE:

- Opal multi-wall PCA 10  
U<sub>g</sub> = 2.7 W/ m<sup>2</sup>.K
- Fireproof (M0) aluminium blade, unfinished or lacquered in RAL colours
- Insulated aluminium blade - sheet metal on both sides, unfinished or lacquered in RAL colours



#### Upstand

##### STEEL VERSION:

- Straight upstand
- 1.2 mm galvanised steel
- Height 300 mm with 15 mm bituminous insulating coating

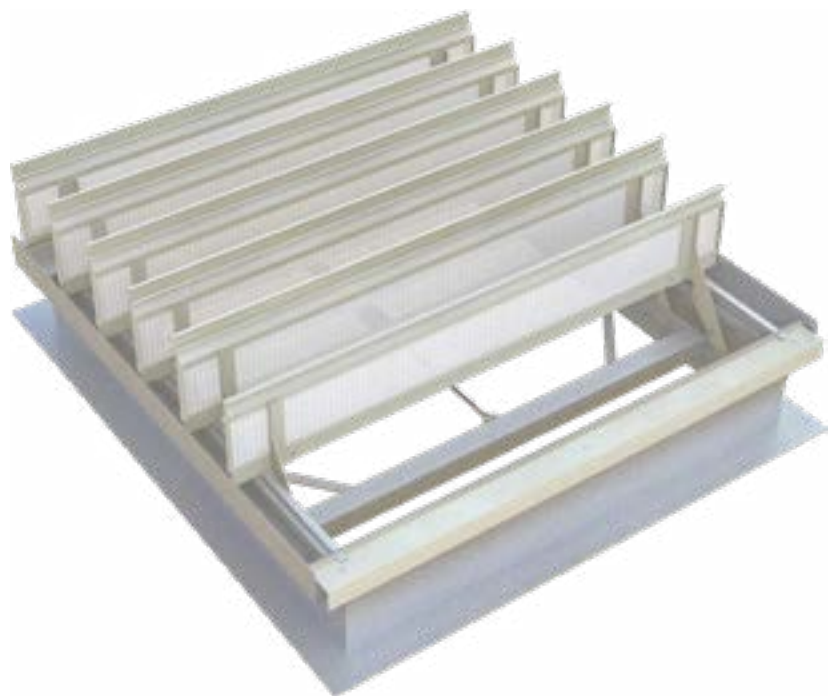
##### ALUMINUM VERSION:

- Straight upstand
- Height 200 mm with heel



#### Control

- Electric opening/closing
- Mechanism integrated into the volume of the steel or aluminium upstand for a height of 300 mm



## OPTIONS



#### Types of filling

- Opal PCA 10 IR
- Black and white opaque PCA 10
- Transparent PCA 10
- PCA 10 + Lumira\*



#### Control

- Limit switch



#### Upstand

- Special adaptation on aluminium upstand version
- Lacquered interior (standard RAL colours)
- Colaminated sheet steel top for PVC waterproofing
- Galvanised sheet steel top for PVC waterproofing
- Bare insulation for PVC waterproofing



#### Wind baffles

- Straight steel upstand: steel wind baffles
- Straight aluminium upstand: aluminium wind baffles.

#### Capping upstand

- Straight galvanised steel adapter upstand, 300 mm high with 84 mm heel and 40 mm overlap
- Straight aluminium adapter upstand, 200 mm high with 70mm heel and 50 mm overlap

## Electrical performance of motor

Dimensions (cm)	Current (A)	Voltage (V)
All sizes	1.1	24

If the ARCALAM® ÉVOLUTION ÉLECTRIQUE IS USED for electric ventilation only, the unit may be equipped with a 230 V electric jack.

## Filling performance

Other filling and filling options: see "Filling" data sheet.

Type of filling	Thermal transmittance factor Ug (W/ m <sup>2</sup> .K)	LT D65 <sup>(2)</sup>	SF or g <sup>(2)</sup>	Reaction to fire	R <sub>w</sub> R <sub>A</sub> =R <sub>w</sub> +C R <sub>A,Tr</sub> =R <sub>w</sub> +C <sub>Tr</sub> (dB) <sup>(3)</sup>
	U <sub>hor</sub> <sup>(1)</sup>				
Opal 4-wall PCA 10	2.9	61%	61%	B-s1-d0	R <sub>w</sub> =19 dB
33.2 laminated glass	ND	>85 %	ND	M0	ND
Aluminium blade	ND	0%	0%	M0	ND
Insulated aluminium blade	ND	0%	0%	ND	ND

<sup>(1)</sup>Relative to the horizontal, as per §2.31 of the Th-Bat regulations.

<sup>(2)</sup>Light transmittance LT D65 and solar transmittance SF (TST or g) as per EN 410.

<sup>(3)</sup>Filling insulated against airborne noise R<sub>w</sub>, pink noise R<sub>A</sub> (environment, airport and industrial activities) and road noise R<sub>A</sub>, laboratory-measured according to NF EN ISO 140.

## Geometric area Av (m<sup>2</sup>)

Number of blades	Length (cm)	Width (cm)												
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
6	1107	1.11	1.22	1.33	1.44	1.55	1.66	1.77	1.88	1.99	2.10	2.21	2.32	2.44
7	1269	1.27	1.40	1.52	1.65	1.78	1.90	2.03	2.16	2.28	2.41	2.54	2.66	2.79
8	1431	1.43	1.57	1.72	1.86	2.00	2.15	2.29	2.43	2.58	2.72	2.86	3.01	3.15
9	1593	1.59	1.75	1.91	2.07	2.23	2.39	2.55	2.71	2.87	3.03	3.19	3.35	3.50
10	1755	1.76	1.93	2.11	2.28	2.46	2.63	2.81	2.98	3.16	3.33	3.51	3.69	3.86
11	1917	1.92	2.11	2.30	2.49	2.68	2.88	3.07	3.26	3.45	3.64	3.83	4.03	4.22
12	2079	2.08	2.29	2.49	2.70	2.91	3.12	3.33	3.53	3.74	3.95	4.16	4.37	4.57
13	2241	2.24	2.47	2.69	2.91	3.14	3.36	3.59	3.81	4.03	4.26	4.48	4.71	4.93
14	2403	2.40	2.64	2.88	3.12	3.36	3.60	3.84	4.09	4.33	4.57	4.81	5.05	5.29
15	2565	2.57	2.82	3.08	3.33	3.59	3.85	4.10	4.36	4.62	4.87	5.13	5.39	5.64
16	2727	2.73	3.00	3.27	3.55	3.82	4.09	4.36	4.64	4.91	5.18	5.45	5.73	6.00
17	2889	2.89	3.18	3.47	3.76	4.04	4.33	4.62	4.91	5.20	5.49	5.78	6.07	6.36
18	3051	3.05	3.36	3.66	3.97	4.27	4.58	4.88	5.19	5.49	5.80	6.10	6.41	6.71

## Aeraulic performance Aa (m<sup>2</sup>)

Number of blades	Length (cm)	Width (cm)												
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
Effective opening area Aa (m <sup>2</sup> )														
<b>ARCALAM® ÉVOLUTION ÉLECTRIQUE - Steel upstand version for waterproofing (with wind baffles)</b>														
6	1107	0.66	0.73	0.80	0.87	0.94	1.01	1.07	1.14	1.21	1.28	1.35	1.42	1.49
7	1269	0.76	0.84	0.92	1.00	1.08	1.16	1.24	1.32	1.40	1.50	1.58	1.66	1.74
8	1431	0.86	0.95	1.04	1.13	1.22	1.31	1.42	1.51	1.60	1.69	1.78	1.87	1.96
9	1593	0.96	1.06	1.16	1.26	1.37	1.48	1.58	1.68	1.79	1.89	1.99	2.09	2.19
10	1755	1.06	1.17	1.28	1.41	1.53	1.64	1.75	1.86	1.97	2.08	2.19	2.30	2.42
11	1917	1.16	1.28	1.41	1.55	1.67	1.79	1.91	2.03	2.16	2.28	2.40	2.52	2.64
12	2079	1.26	1.39	1.55	1.68	1.81	1.94	2.08	2.21	2.34	2.47	2.60	2.74	2.87
13	2241	1.36	1.51	1.67	1.81	1.95	2.10	2.24	2.38	2.53	2.67	2.81	2.95	3.10
14	2403	1.46	1.64	1.79	1.94	2.10	2.25	2.40	2.56	2.71	2.86	3.02	3.17	3.32
15	2565	1.56	1.75	1.91	2.08	2.24	2.40	2.57	2.73	2.89	3.06	3.22	3.39	3.55
16	2727	1.66	1.86	2.04	2.21	2.38	2.56	2.73	2.91	3.08	3.25	3.43	3.60	3.78
17	2889	1.77	1.97	2.16	2.34	2.53	2.71	2.90	3.08	3.26	3.45	3.63	3.82	4.03
18	3051	1.89	2.09	2.28	2.48	2.67	2.87	3.06	3.25	3.45	3.64	3.84	4.03	4.23
<b>ARCALAM® ÉVOLUTION ÉLECTRIQUE - Capping upstand version (with wind baffles)</b>														
6	1107	0.66	0.73	0.81	0.88	0.95	1.02	1.09	1.16	1.23	1.30	1.37	1.44	1.51
7	1269	0.77	0.85	0.93	1.01	1.09	1.17	1.25	1.34	1.43	1.52	1.60	1.69	1.77
8	1431	0.87	0.96	1.05	1.15	1.24	1.33	1.44	1.54	1.63	1.72	1.82	1.91	2.00
9	1593	0.97	1.07	1.18	1.28	1.39	1.51	1.61	1.72	1.82	1.93	2.03	2.13	2.24
10	1755	1.07	1.19	1.30	1.43	1.55	1.67	1.78	1.90	2.01	2.13	2.24	2.36	2.48
11	1917	1.18	1.30	1.43	1.55	1.70	1.83	1.95	2.08	2.21	2.33	2.46	2.58	2.71
12	2079	1.28	1.42	1.57	1.71	1.85	1.99	2.12	2.26	2.40	2.53	2.67	2.81	2.95
13	2241	1.38	1.53	1.70	1.85	2.00	2.14	2.29	2.44	2.59	2.74	2.89	3.03	3.18
14	2403	1.48	1.67	1.82	1.98	2.14	2.30	2.46	2.62	2.78	2.94	3.10	3.26	3.40
15	2565	1.59	1.78	1.95	2.12	2.29	2.46	2.63	2.80	2.97	3.14	3.31	3.48	3.61
16	2727	1.69	1.90	2.08	2.26	2.44	2.62	2.80	2.98	3.17	3.35	3.53	3.71	3.82
17	2889	1.80	2.01	2.20	2.40	2.59	2.78	2.97	3.16	3.36	3.55	3.74	3.91	4.03
18	3051	1.92	2.13	2.33	2.53	2.74	2.94	3.14	3.35	3.55	3.75	3.96	4.11	4.23

### COMPLIANCE & INSTALLATION

CE certified NSHEV compliant with **NF EN 12101-2 (product certification No. 0333 CPR 219056)**.

The product must be fastened and sealed in accordance with the requirements defined in the applicable DTU specifications (series 40 and 43).

Maximum insulation height: as per the DTUs, the sealing flashing must extend to a height of at least 150 mm.

The waterproofing complex (substrate, vapour barrier, insulation and two-layer sealant) must be no thicker than 40 mm for an interior upstand height of 200 mm, or 140 mm for an interior upstand height of 300 mm.

DoP available at [www.skydome.eu](http://www.skydome.eu)

Maximum permissible snow loads SL (Pa)

Number of blades	Length (cm)	Width (cm)												
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
CO <sub>2</sub> consumption of ARCALAM EVOLUTION PNEUMATIQUE® jacks Steel or aluminium upstand, SL 250														
6	1107													
7	1269													
8	1431													
9	1593													
10	1755													
11	1917													
12	2079													
13	2241													
14	2403													
15	2565													
16	2727													
17	2889													
18	3051													

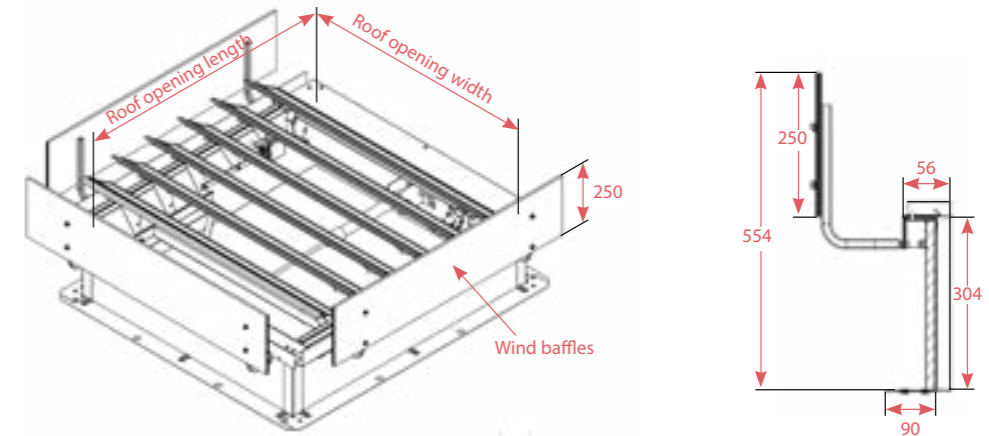
Maximum snow loads SL 500

Maximum snow loads SL 250

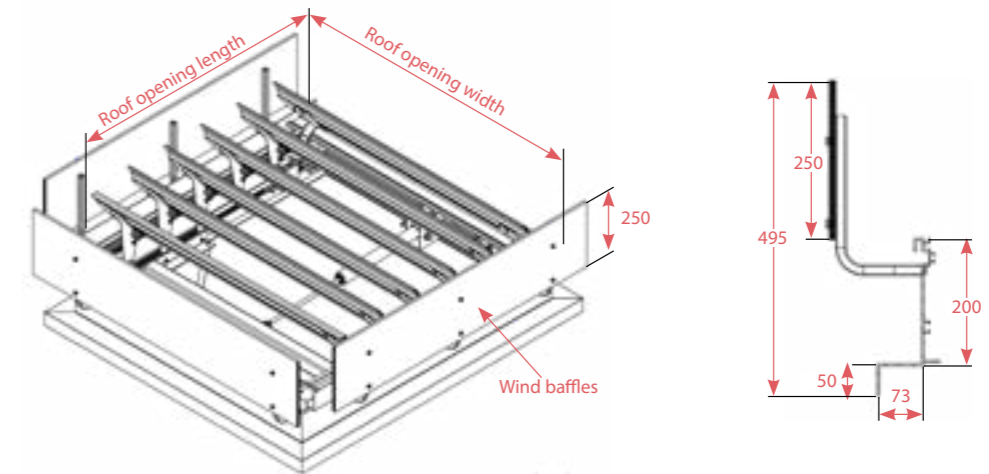
Stated values are for 10 mm thick PCA filling. They are the same for aluminium and PCA lamellas (contact us if you require glass), in straight, conical or capping upstand versions.

Technical diagrams

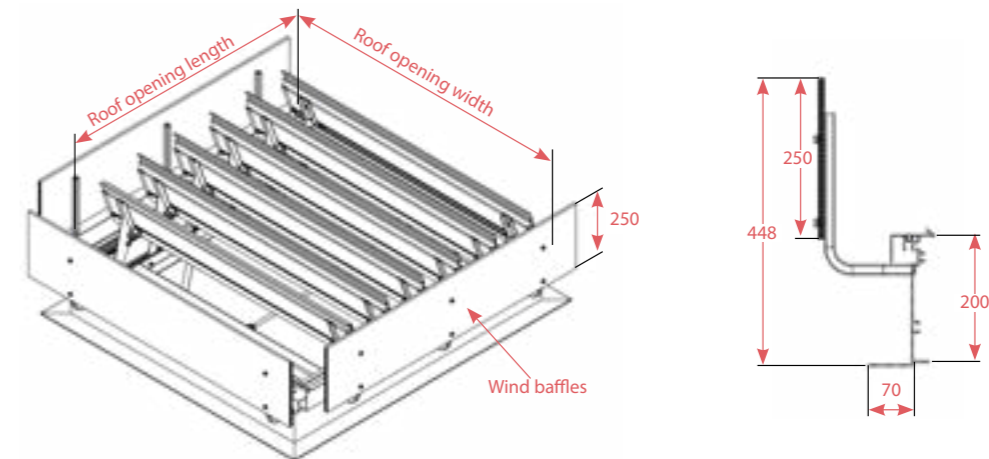
ARCALAM ÉVOLUTION ÉLECTRIQUE  
Galvanised steel upstand with wind baffles



ARCALAM ÉVOLUTION ÉLECTRIQUE  
Aluminium upstand with wind baffles



ARCALAM ÉVOLUTION ÉLECTRIQUE  
No overlap with wind baffles





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