

ARCALAM[®]

CE
EN 12101-2
EN 1873 + A1: 2016

Évolution Électrique

ORIGIN' VERSION

The ARCALAM[®] 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_g = 2.7 W/ m².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

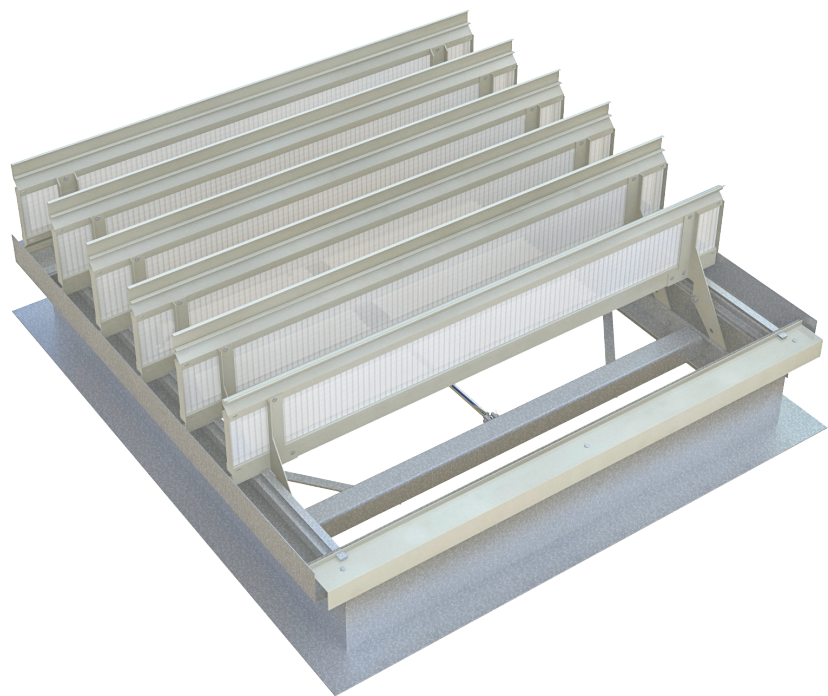
ALUMINUM VERSION:

- 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
- Grey 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 ² .K)	LT D65 ⁽²⁾	SF or g ⁽²⁾	Reaction to fire	R_w $R_A = R_w + C$ $R_{A,Tr} = R_w + C_{tr}$ (dB) ⁽³⁾
	U _{hor} ⁽¹⁾				
Opal 4-wall PCA 10	2.9	61%	61%	B-s1-d0	R _w = 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

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

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

⁽³⁾ Filling insulated against airborne noise R_w, pink noise R_A (environment, airport and industrial activities) and road noise R_{A,Tr}, laboratory-measured according to NF EN ISO 140.

Geometric area Av (m²)

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 (m²)

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 ²)														
ARCALAM® ÉVOLUTION ÉLECTRIQUE - Steel upstand version for waterproofing (with wind baffles)														
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
ARCALAM® ÉVOLUTION ÉLECTRIQUE - Capping upstand version (with wind baffles)														
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

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 ₂ consumption of ARCALAM EVOLUTION PNEUMATIQUE® jacks Steel or aluminium upstand, SL 250														
6	1107	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
7	1269	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
8	1431	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
9	1593	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
10	1755	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
11	1917	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Blue
12	2079	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Blue	Blue	Blue
13	2241	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Blue	Blue	Blue	Blue	Blue	Blue
14	2403	Orange	Orange	Orange	Orange	Orange	Orange	Blue	Blue	Blue	Blue	Blue	Blue	Blue
15	2565	Orange	Orange	Orange	Orange	Orange	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
16	2727	Orange	Orange	Orange	Orange	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
17	2889	Orange	Orange	Orange	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
18	3051	Orange	Orange	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue

Orange Maximum snow loads SL 500

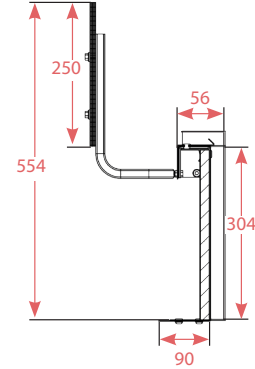
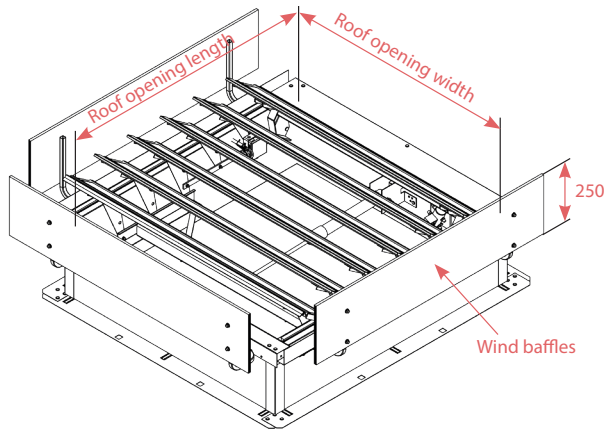
Blue Maximum snow loads SL 250

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

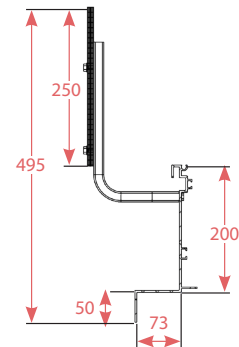
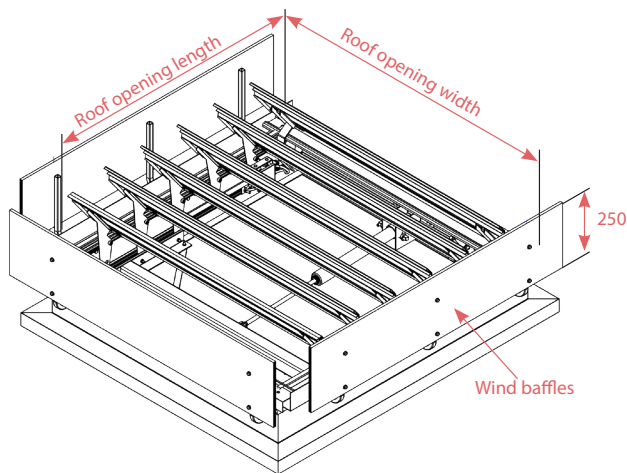
ARCALAM ÉVOLUTION ÉLECTRIQUE

Galvanised steel upstand with wind baffles



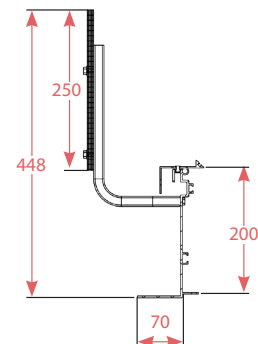
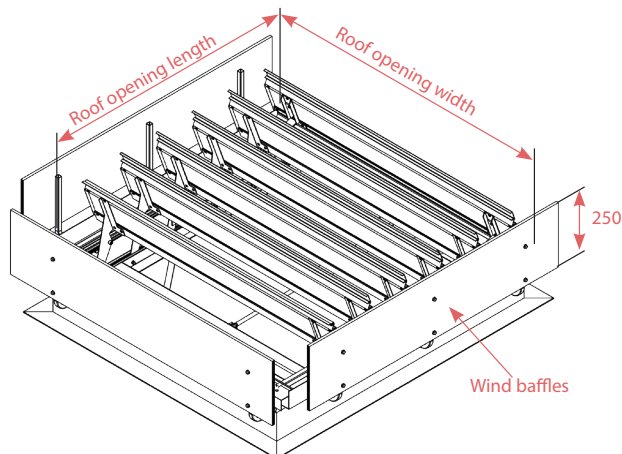
ARCALAM ÉVOLUTION ÉLECTRIQUE

Aluminium upstand with wind baffles



ARCALAM ÉVOLUTION ÉLECTRIQUE

No overlap with wind baffles



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For the product range in other countries, please contact your local representative or visit www.skydome.eu

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