

**Elegant aluminium patio cover with rotatable blades and surface-mounted side elements.**

## PRODUCT CHARACTERISTICS

- Sleek design
- Protection from the sun, rain and wind
- Roof structure with rotatable aluminium blades
- Io or RTS control
- Side elements and accessories surface-mounted
- 2-part joinable on the pivot without additional column



## TECHNICAL DATA

Dimensions	
Span – Single	Min. 800 mm – max. 4500 mm
Span – Expanded	Min. 1600 mm – max. 6000 mm
Pivot	Min. 1110 mm – max. 6055 mm
Passage height	Min. 375 mm – max. 2800 mm
Total height with blades closed without motor cabinet	Passage height + 230 mm
Total height with blades 90° open without motor cabinet	Passage height + 325 mm
Total height including motor cabinet	Passage height + 360 mm
Minimum required height when installing under a roof overhang	Passage height + 365 mm
Blade rotation	Max. 150°
Minimum number of water drainage points < 16 m <sup>2</sup>	1
Minimum number of water drainage points > 16 m <sup>2</sup>	2*
Testing and certificates	
Wind guarantee of roof with blades closed	Up to 120 km/h
Wind guarantee of closed Fixscreen	Up to 60 km/h
Max. wind speed for roof or Fixscreen operation	Up to max. 50 km/h
Water drainage flow	120 l/m <sup>2</sup> .h
Load-bearing capacity	100 kg/m <sup>2</sup>
Warranty	
Structure	7 years
Motors and controls	2 years
Somfy motors (Fixscreens)	5 years
Aluminium profile paintwork	10 years
Colour and shine	15 years**
Fixscreen technology	5 years
Operating methods	
Somfy RTS	✓
Somfy IO	✓
Somfy Connexoon	✓
Somfy Tahoma	✓
Renson App control	-

\* Take note: if only 1 column is present, the drainage will only be 0.025 L/m<sup>2</sup>.s [90 l/h]

\*\* Subject to registration of extended warranty and annual cleaning using the Renson® Maintenance Set

## ACCESSORIES OVERVIEW

Fixscreens	
Integrated Fixscreen	-
Surface-mounted Fixscreen	✓
Sliding panels	
Loggia sliding panels	✓*
Loggiascreen Canvas sliding door	-
Glass walls	✓
Fixed walls	
Linus wall	✓**
Linarte wall	-
Triangle	-
Outdoor curtains	
Outdoor curtains	✓
Column	
Extra column	✓
Shifted column	✓
Adjustable wall profile	-
Lighting	
Lineo LED blade	✓
Updown LED	✓
Colomno LED	-
Lapure LED	-
Comfort & design	
Heating & sound	✓
Beam Heat & Sound	✓
Translucent Lineo Luce blades	✓
Wooddesign	✓
Protecto protection profile	✓

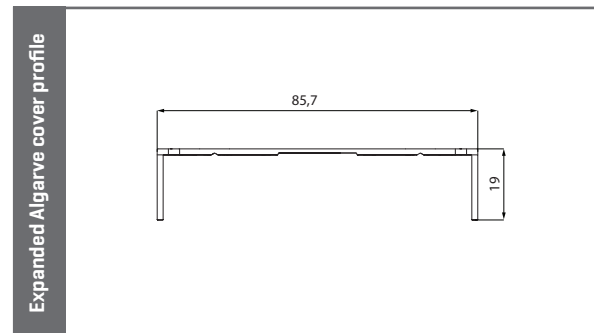
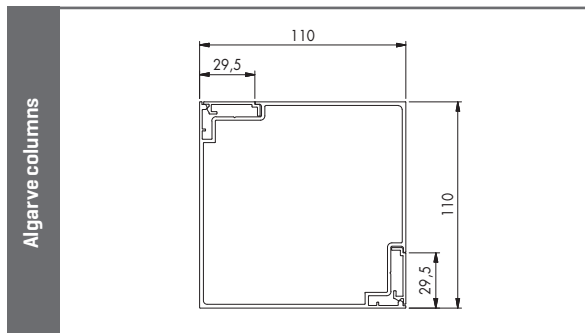
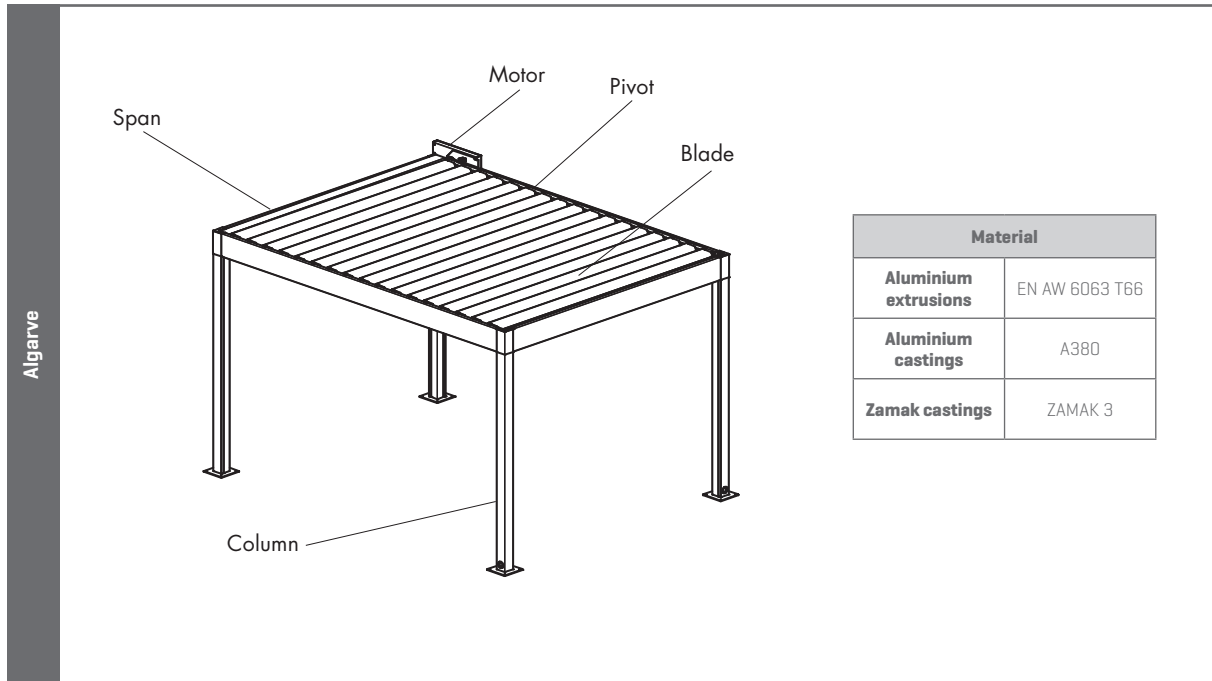
\* Up to a free width of 4250 mm

\*\* Subject to use of reinforced mounting bases

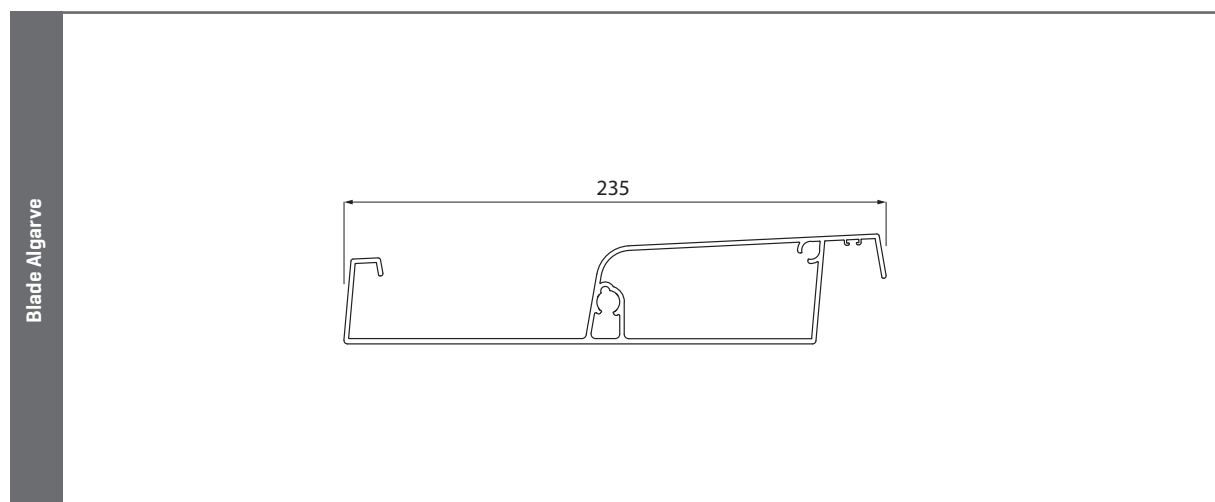
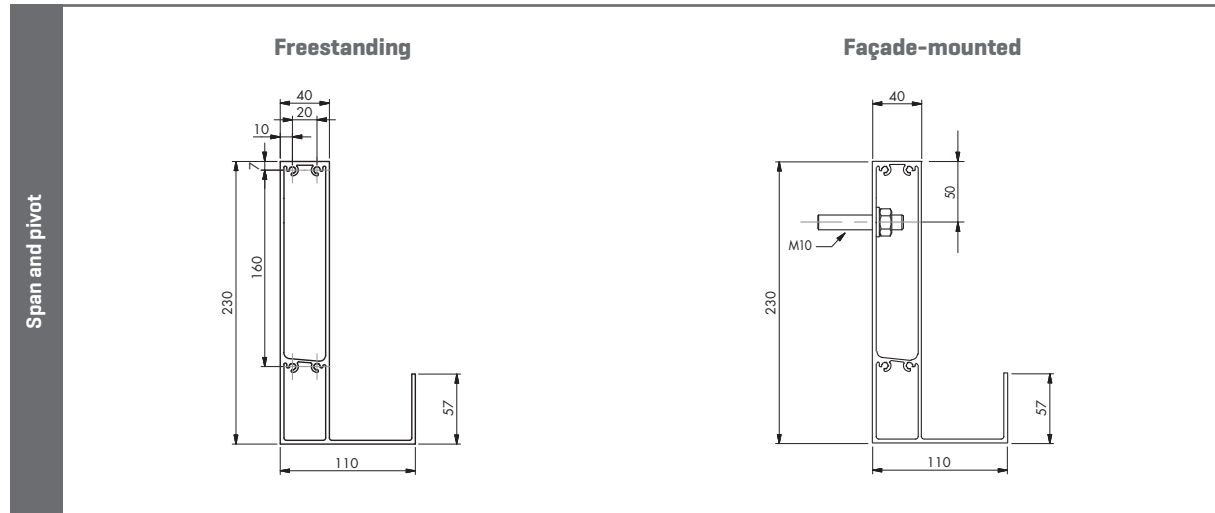
## ELECTRICAL SPECIFICATIONS BLADED ROOF

Specifications	Value
Supply voltage	230 Volts AC, 50 Hz
Power range transformer	0 - 2.5 Amps
Power transformer	100 W
Motor voltage	24 Volt DC
Rated motor current	3 Amps
Protection class	IP 66 Dynamic
Maximum runtime during continuous use	Approx. 2 minutes

**PROFILES**



**PROFILES**



## SPECIFICATIONS PERFORMANCE DOP

European Document EN 1090-1: 2013

Essential characteristics	Performance
Tolerances on geometric data	Conform EN 1090-3 [aluminium constructions]
Weldability	NPD
Fracture toughness	NPD [Not required for aluminum products]
Load capacity	TEN document no 2017-0203 - EN 1990
Reaction to fire	EN 13501 - Class A1
Release of cadmium	NPD
Emission of radioactivity	NPD
Durability	NPD

## WATER TESTS

Water resistance and water drainage are tested using a spray installation that mimics rain. For example, we check how much water our patio covers can drain and how this drainage can be optimised.

The Algarve can drain an amount of water equivalent to a rain shower with an intensity of 120 l/m<sup>2</sup>/h that lasts up to 2 minutes. This kind of rain occurs on average once every ten years in Belgium [See Belgian rain statistics: NBN B 52-011 standard].

## WIND TESTS

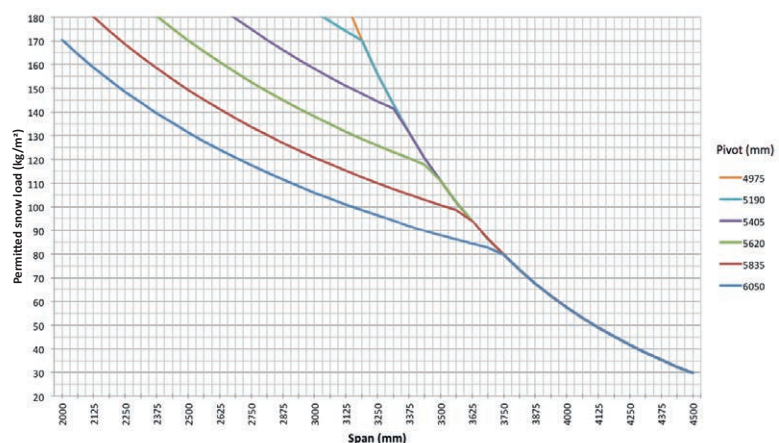
Wind tunnel tests have been carried out to determine the wind forces that our patio covers and vertical sun protection screens can withstand. A 4000 X 4000 mm Algarve cover was tested in winds up to 120 km/h [12 Bft]. Following these tests, we concluded that the blades should be closed when wind speeds reach > 50 km/h [7 Bft] and no problems occur when blades are closed in winds up to 120 km/h.

Warranty valid up to 120 km/h when blades are closed.

## LOAD-BEARING CAPACITY

Patio covers are subjected to various external forces [e.g. snow]. The load-bearing capacity of our covers is determined using static strength calculations carried out by our engineers and validated through internal tests. The basic principle is that the structure is allowed to bend by 1/200th of its longest dimension without any permanent deformation occurring.

The load-bearing capacity of Algarve is dependent on the basic structure and the surface area. The diagram indicates the load-bearing capacity of our covers depending on their span and pivot dimensions.



**SNOW LOAD**

SINGLE ALGARVE - SNOW LOAD [kg/m <sup>2</sup> ]										
	# blades	Dimensions in mm	Span							
			1800	2000	2200	2400	2600	2800	3000	3200
Pivot	11	2615	300	300	300	300	252	197	156	125
	12	2830	300	300	300	300	252	197	156	125
	13	3045	300	300	300	300	252	197	156	125
	14	3260	300	300	300	300	252	197	156	125
	15	3475	300	300	300	300	252	197	156	125
	16	3690	300	300	300	300	252	197	156	125
	17	3905	300	300	300	300	252	197	156	125
	18	4120	300	300	300	300	252	197	156	125
	19	4335	300	300	300	300	252	197	156	125
	20	4550	300	300	300	300	252	197	156	125
	21	4765	300	300	300	276	254	197	156	125
	22	4980	300	300	275	251	230	197	156	125
	23	5195	300	270	244	223	205	189	156	125
	24	5410	264	236	213	194	178	165	153	125
	25	5625	232	207	187	170	156	144	133	124
	26	5840	204	183	165	150	137	126	117	109
	27	6055	181	161	145	132	121	111	103	95

SINGLE ALGARVE - SNOW LOAD [kg/m <sup>2</sup> ]									
	# blades	Dimensions in mm	Span						
			3400	3600	3800	4000	4200	4400	4500
Pivot	11	2615	101	82	67	55	45	37	34
	12	2830	101	82	67	55	45	37	34
	13	3045	101	82	67	55	45	37	34
	14	3260	101	82	67	55	45	37	34
	15	3475	101	82	67	55	45	37	34
	16	3690	101	82	67	55	45	37	34
	17	3905	101	82	67	55	45	37	34
	18	4120	101	82	67	55	45	37	34
	19	4335	101	82	67	55	45	37	34
	20	4550	101	82	67	55	45	37	34
	21	4765	101	82	67	55	45	37	34
	22	4980	101	82	67	55	45	37	34
	23	5195	101	82	67	55	45	37	34
	24	5410	101	82	67	55	45	37	34
	25	5625	101	82	67	55	45	37	34
	26	5840	101	82	67	55	45	37	34
	27	6055	89	82	67	55	45	37	34

 Beam deflection (PIVOT) less than L/200

 Bending stress (PIVOT) less than maximum allowable bending stress taking into account safety factor 1.5

 Steel deck deflection less than L/200 - Represents the limiting factor

Tables are capped at 300 kg/m<sup>2</sup> because values above are no longer relevant.

**SNOW LOAD**

COUPLED ALGARVE - SNOW LOAD [kg/m <sup>2</sup> ]											
	# blades	Dimensions in mm	Span								
			3200	3400	3600	3800	4000	4200	4400	4500	
Pivot	11	2615	300	300	300	300	300	300	300	290	276
	12	2830	300	300	300	300	300	300	296	267	254
	13	3045	300	300	300	300	300	300	274	246	234
	14	3260	300	300	300	300	284	254	229	217	
	15	3475	300	300	300	297	265	237	213	203	
	16	3690	300	300	300	279	248	222	20	190	
	17	3905	300	300	296	262	233	209	188	178	
	18	4120	300	300	279	247	220	197	177	168	
	19	4335	300	300	261	234	208	186	167	159	
	20	4550	300	285	251	222	197	176	158	150	
	21	4765	300	271	239	211	188	168	150	143	
	22	4980	296	259	227	201	179	159	143	136	
	23	5195	283	247	217	192	170	152	136	129	
	24	5410	271	236	208	183	163	145	130	123	
	25	5625	260	227	199	176	156	139	124	118	
	26	5840	249	217	191	168	149	133	119	113	
	27	6055	240	209	183	162	143	128	114	108	

COUPLED ALGARVE - SNOW LOAD [kg/m <sup>2</sup> ]										
	# blades	Dimensions in mm	Span							
			4600	4800	5000	5200	5400	5600	5800	6000
Pivot	11	2615	263	239	217	199	182	167	154	142
	12	2830	241	219	199	182	167	153	141	130
	13	3045	223	202	184	168	154	141	130	119
	14	3260	27	188	171	156	142	130	120	110
	15	3475	193	175	159	145	132	121	111	102
	16	3690	180	163	148	135	124	113	104	95
	17	3905	169	153	139	127	116	106	97	89
	18	4120	16	144	131	119	109	99	91	83
	19	4335	151	136	124	112	102	93	86	78
	20	4550	143	129	117	106	97	88	81	74
	21	4765	135	122	111	100	91	83	76	70
	22	4980	129	116	105	95	87	79	72	66
	23	5195	122	110	100	91	72	75	68	62
	24	5410	117	105	95	86	78	71	65	59
	25	5625	112	101	91	82	75	68	62	56
	26	5840	107	96	87	78	71	65	59	53
	27	6055	102	92	83	75	68	62	56	51

Bending stress (PIVOT) less than maximum allowable bending stress taking into account safety factor 1.5

Tables are capped at 300 kg/m<sup>2</sup> because values above are no longer relevant.

**INDICATION WEIGHT**

WEIGHT OF ALGARVE WITHOUT COLUMNS [kg]										
	# blades	Dimensions in mm	Span							
			1800	2000	2200	2400	2600	2800	3000	3200
Pivot	11	2615	145	155	164	175	185	194	204	213
	12	2830	154	163	174	185	195	205	215	226
	13	3045	162	173	184	194	205	216	227	238
	14	3260	171	181	193	204	215	227	238	250
	15	3475	180	190	202	214	226	238	250	262
	16	3690	188	198	211	223	236	249	261	274
	17	3905	197	206	220	233	246	260	273	287
	18	4120	205	215	229	243	257	271	285	299
	19	4335	214	223	238	252	267	282	297	312
	20	4550	222	232	247	262	278	293	309	324
	21	4765	230	240	256	273	288	304	320	336
	22	4980	239	248	266	282	299	315	332	348
	23	5195	247	258	275	292	309	326	343	360
	24	5410	257	266	284	302	319	337	355	372
	25	5625	265	275	293	311	330	348	366	384
	26	5840	274	283	302	321	340	359	378	398
	27	6055	282	292	311	331	350	370	390	410

WEIGHT OF ALGARVE WITHOUT COLUMNS [kg]									
	# blades	Dimensions in mm	Span						
			3400	3600	3800	4000	4200	4400	4500
Pivot	11	2615	223	233	242	252	261	272	277
	12	2830	236	246	256	266	278	288	293
	13	3045	249	259	270	282	293	304	309
	14	3260	261	273	285	297	308	320	325
	15	3475	274	287	299	311	323	335	342
	16	3690	288	301	313	326	339	351	358
	17	3905	301	314	327	341	354	367	374
	18	4120	313	327	341	355	369	383	390
	19	4335	326	341	355	370	384	399	406
	20	4550	339	354	369	384	400	415	423
	21	4765	352	367	383	399	415	432	440
	22	4980	364	381	397	414	431	448	456
	23	5195	377	394	411	429	446	463	472
	24	5410	390	409	426	444	462	479	488
	25	5625	404	422	440	459	477	495	504
	26	5840	416	435	454	473	492	511	520
	27	6055	429	449	468	488	507	527	537

The table above shows the weight of the Algarve frame, the weight of the columns was not taken into account.  
 Each column present in the configuration will result in an additional weight of 4.8 kg / meter column.