

Designer Awnings for Patio and Balcony

General Information

Awnings Made-to-measure | Quality and Design by markilux.



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The markilux Brand – Designer Awnings "Made in Germany"

Custom-made with convenient technology

The markilux product portfolio meets the highest demands and extends from patio awnings, glass canopy awnings and vertical blinds through to free-standing sun protection systems as well as large-scale awning landscapes for garden, hotel and gastronomic applications.

Each and every markilux awning is custom-made, of the highest quality, and is equipped with durable technology that makes your life easier.

The markilux in-house engineers create products or further develop them in our own R&D and testing facilities. Breaking new ground with technical innovations has been the tradition at markilux since the 1980s. Each and every detail is carefully thought through to make markilux awnings even quieter, make them work more smoothly or render them more stable in wind.

Innovative, award-winning design

Reliable technology – high quality – elegant products: That is the markilux philosophy. Many awards, such as the IF Design Award, the Interior Innovation Award, the Plus X- and the German Design Award, are all confirmation of the successful design concept behind markilux awnings. markilux has committed itself to combining reliable functionality and product-defining elegance.

Premium technology and modern cover patterns

More than 40 years of experience in awning construction – markilux awnings are manufactured from various materials of the highest quality, such as stainless steel, aluminium, steel and high quality plastics, by our specialists in our state-of-the-art production facility from start to finish. The solar protection fabrics we employ, made from high-tech fibres, are created by our own in-house designers and stretch from classic to trendy and include series for special applications – as well as ranges with additional features such as waterproofing, flame-retardant or heat-reflecting properties. They are produced on high-performance weaving looms and the finish is applied with the most modern of coating machines. This makes markilux one of the leading awning manufacturers in Europe.

Safety with conviction

Certified quality is the result of in-house progress and improvements in our production processes. The high expectations we place on quality are proof of our commitment to the users of our products. The uniqueness in the depth of product expertise, from the fibre to sun protection fabric and in the production of our awnings, from the individual component to the complete awning frame, means optimum quality assurance at every production stage – enabling the creation of the ideal product.

Experiencing the world of markilux awnings

Immerse yourself in a "live" markilux awning world – something you can do at exclusive markilux showrooms in Emsdetten, Hamburg, Cologne, Lörrach, Berlin or Salzburg. You can experience all the options markilux offers, presented in an elegant patio atmosphere. While gathering inspiration and getting qualified advice with the product live in front of you, various solutions are presented that fulfil the demands placed on modern solar protection.

Service and partnership

markilux sun protection products include perfect advice and installation – a first class service for the end consumer before, during and after the purchase of a markilux awning. This is guaranteed by our selected specialist partners at home and abroad. A wide and individual range of training offers at all markilux sites means safety when handling markilux products and success on location.

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01 markilux awnings provide shade

Compass directions

Sunlight is strongest on the south side (S) of the house in the northern hemisphere. This is where the sun is highest in summer and lowest in winter. In the east (E) and west (W) the sun is lower in the mornings and evenings. The width, projection and pitch angle of your markilux awning must be chosen to best suit the orientation of the house and the construction and layout of the building.

UV radiation

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markilux awning fabrics offer the highest protection in dark colours. Lighter colours (right up to plain white) stop UV radiation less well. All fabrics achieve the highest possible sun protection factor for textiles (UPF 50+). This statement is based on tests carried out by the Hohenstein research institute.

The UPF (Ultraviolet Protection Factor) specifies how much longer one can be exposed to sunlight when protected from it by the given UPF without suffering sunburn. Based purely on calculatged values, woven fabrics with an ultraviolet protection factor of 50+ would enable you to sit out safely in the sun fifty times longer than you would otherwise be able to without becoming sunburnt, if you were to rely solely on the protection provided by your skin.

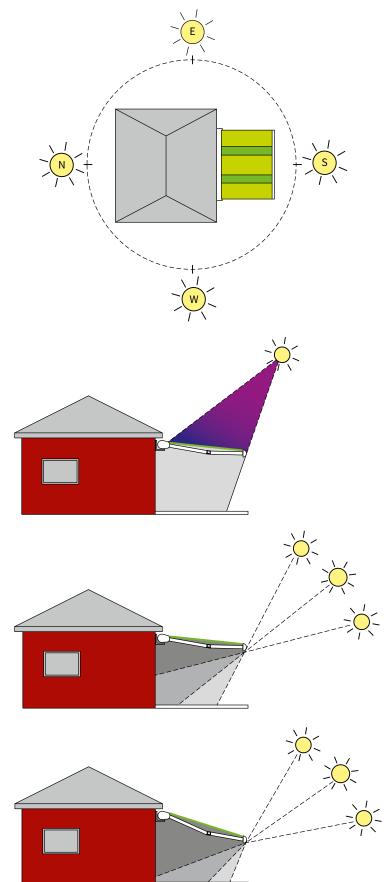
Awning size

The wider the awning, the better the awning protects against the sun's rays from the side.

A larger projection also creates a large area of shade at any time of year.

Pitch

markilux allows the best angle of pitch to be reliably and flexible set during installation. Optional extras such as a valance or shadeplus also increase the shaded area. The respective valance styles are illustrated in the markilux collection.



markilux awnings in wind, rain and snow

Just as the sailor reefs and furls his sails so you too should protect your awning against strong winds, snow, frost and rain.



An awning is a sun protection unit.

An awning must not be extended when it is likely to snow or there is a risk of frost. When a storm or bad weather front is approaching, severe gusts of wind can occur suddenly to which even an automatic control mechanism cannot react with sufficient speed. During longer periods of absence, e.g. holidays or during the night, an automatic control system cannot always guarantee continuous, faultless operation of your awning. We recommended the awning be retracted in time and automatic control mechanism be switched off before the onset of frost, when a thunderstorm or bad weather is approaching or during longer periods of absence!

Dampness and cold can lead to the cover becoming stiff and cause the thermal safety cut-out mechanism to activate. This will prevent the awning from being retracted for a short while. If there is snow on the awning it must be removed and a frozen awning cover thawed out before the awning is retracted.

If the pitch of the awning cover is less than 25% (drop of 25 cm over 100 cm projection) or 14° measured from the horizontal, or if the awning is not extended entirely, then it must not be exposed to rainfall. If this is the case, there is a risk of the formation of water troughs in the awning cover and the awning may become damaged or even detached from the wall. If your awning has been retracted when wet it should be extended again at the earliest opportunity to allow it to dry.

Wind stability



markilux awnings meet the requirements of European Standard EN 13561 and in so doing the current technical regulations with respect to their construction and fixing brackets. markilux awnings are CE certified according to this European standard and meet the requirements of the accredited wind resistance class (no wind resistance class is attributed to the largest awning sizes and those that exceed our standard specifications). Wind resistance class 2 corresponds to Beaufort 5 or a wind speed of up to 10.4 metres per second (m/s), 37 km/h or 23 mph. The wind resistance class describes the wind speed at which an awning may be used outdoors in accordance with European Standard EN 13561.



markilux GmbH + Co. KG Hansestrasse 53 48282 Emsdetten | Germany DIN EN 13561 Awnings for exterior applications.

Wind resistance class 2 Beaufort $5 \rightarrow 7.5-10.4 \text{ m/s} \rightarrow 28-37 \text{ km/h} \rightarrow 17-23 \text{ mph}$

The aim of our verbal and written advice is to put you in a position to be able to recommend the best possible uses for markilux products. However, this does not relieve you of the responsibility of convincing yourself – through your own conscientious analysis – of the suitability of our products and services for the application you intend them to be used for. In particular this goes for the checking of the general composition and especially the load bearing capability of the substrate to which the blind or awning is to be fitted. If used at wind speeds greater than those permitted under the wind resistance class, in rain or in snow, dangerous situations may arise, so in these conditions the awning should not be extended.

The most up-to-date detailed instructions as well as descriptions with all relevant information regarding the fixture, operation, care and maintenance of markilux products can be found in the password-protected specialist dealer area at markilux.com.

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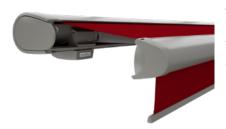
Important details when ordering an awning

Rolltex bearing



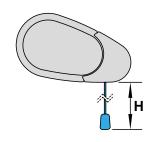
The inherent weight of the roller tube can cause it to sag in the middle in the case of wide awnings. A rolltex bearing is then fitted to support the roller tube: The roller tube is then supported correspondingly by a rolling textile belt.

Shadeplus / drop valance



An additional roller tube inside the front profile allows a larger area under the awning to be shaded when the sun is at its lowest. The shadeplus fabric cover is weighted with a bottom profile. With this perfect sun protection which provides privacy at the same time, you can create a secure and protected little area outdoors. In contrast to awnings which can only give "more shade" by increasing the pitch, those fitted with the markilux shadeplus still provide a maximum of headroom – so giving the immediate impression of realising "more space".

Shadeplus drop



The Shadeplus drop is measured from the bottom edge of the front profile to the bottom edge of the drop valance profile. Due to tolerances in fabric thickness, the actual drop may be shorter than the nominal drop by up to 5 cm. Retract your shadeplus fabric cover immediately if it becomes windy because it is not very stable in windy conditions. Detailed explanations of the maximum drop, types of operation and shadeplus covers can be found in the corresponding chapter of the selected awning model.

Tolerances in dimensions

Tolerances in the dimensions cannot be ruled out for production reasons. The following tolerances in dimensions apply to folding-arm awnings:

Overall awning width	Projection
+ 5 mm / - 10 mm	± 40 mm

Profile deflection

Depending on the size of the awning, deflection may be in evidence in individual profiles and sections of profile which is completely unavoidable. This has no detrimental effect on the functionality and / or durability of the awning.

Contact of the cover with the awning frame

Due to the compact construction and depending on the width, projection and awning model, contact between cover and folding arms may occur during extension and retraction. This has no detrimental effect on the functionality and / or durability of the awning.

Emergency manual override operation

A motor-driven awning cannot be retracted without electricity. In very windy areas with frequent power cuts the use of an awning with additional emergency manual override operation should be considered. The markilux 990 / 1600 / 5010 and 6000 awnings can optionally be equipped with such a drive.

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The pitch adjustment range of folding-arm awnings

The angle of pitch describes the angle displayed by an extended awning cover towards the front. The angle is always measured from the horizontal.

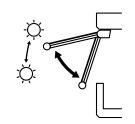




Adjusting the pitch of the markilux 5010 (example)

The angle of pitch of a folding-arm awning is set during its installation. On some models, the pitch is set via a tilt-lock device so that the awning position in relation with the wall always remains the same. The pitch of awning models with a torque bar is set via the fixture bracket. The pitch range and availability vary from model to model.





The markilux 1300 with pitch adjustment gear

There is an extra option, the pitch adjustment gear, which regulates the pitch adjustment in the markilux 1300. After installation, the pitch can be manually adjusted by the owner from 4° to 54° or from 35° to 85° using this gear and a stainless steel hooked crank handle.

The pitch adjustment range of folding-arm awnings

Awning model	Face f	ixture	Top and eaves fixture		
markilux ES-1		5–3	30°		
markilux MX-1, MX-1 compact	5-2	25°	not po:	ssible	
markilux 970	5-3	30°	5–3	0°	
markilux 6000	5-35°	36-70°	5-35°	36-70° 1)	
markilux 5010	5-35°	38-65°	5-35°	38-65° 1)	
markilux 3300		5-4	45°		
markilux 990	5–3	35°	5–7	0°	
markilux 1700 / 1700 stretch		5-50°/	′5–25°		
markilux 1710 / 1710 stretch		5-2	25°		
markilux 1600 / 1600 stretch	5-50°/5-25°				
markilux 1650		5-5	50°		
		gear operation fror	m the front 5–25° $^{1)}$		
markilux 930		gear operation fro	m the rear 5–55° 1)		
		Motor driv	re 5-80° 1)		
markilux 1300	5–55°				
markilux 1300 with pitch	4–54°	35-85°	4–54°	35-85°	
adjustment gear	. 31			22 30	

¹⁾ Eaves fixture not available

All pitch angles are measured from the horizontal.

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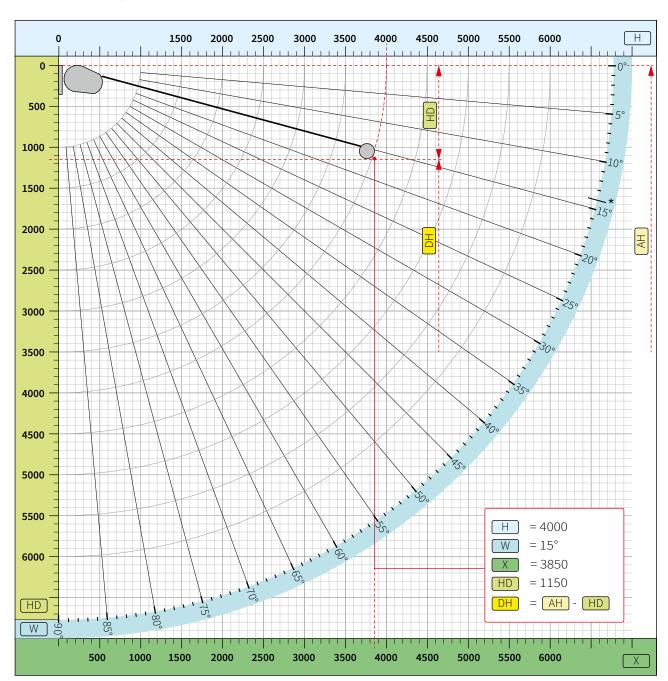
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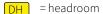
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The pitch adjustment range of folding-arm awnings

Headroom at varying pitches





H = projection

W = pitch angle of the awning cover

X = horizontal coverage

AH = fixture height (to be determined on site)

HD = difference from the fixture height

* Rainwater will only run off the awning cover with the awning fully extended and if it has a pitch of at least 14°.

Awning operation by motor

Drive side

The operation side is specified when looking at the awning from outside (right or left). The power cable for the motor or the additional electrical connections for optional equipment exit to the side or back of the awning. Detailed drawings are available depending on the awning model.

Motor extension time

In motor-driven markilux awnings, extension takes approximately 12 seconds per metre.

Motor types

markilux awnings can be equipped with different motors (depending on the model)

- io radio-controlled motor using 868 MHz technology
- RTS radio-controlled motor using 433 MHz technology
- RTS radio-controlled motor with 433 MHz technology incl. emergency manual override operation
- Hard-wired motor without radio-controlled operation
- silentec motor, which can be additionally equipped with radio-controlled operation

Thermal cut-out protection for awning motors

Retracting and extending the awning several times in quick succession may activate the thermal cut-out mechanism, which prevents the motor from overheating. After it has cooled down the motor will reactivate itself again. Check the power supply if a motor does not function at all.

Varying running speeds for motors

In the case of a bank of awnings operating simultaneously, the same speed of rotation of the motors cannot be guaranteed because of the internal tolerances of the motors.

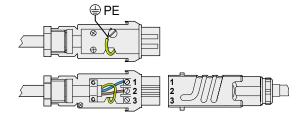
Motor power supply cable connected to 230 V AC / 50 Hz

markilux awnings are supplied as standard with a power supply cable between 50 cm and 1 metre long depending on the motor type. A 5 m long power supply cable can be supplied on request (please state 5 m cable length when placing the order-surcharge).

Coupling plug on the power supply cable

The power supply cable is connected via a coupling plug (Hirschmann) to the mains and meets ingress protection rate IP 54.

Connecting power to an RTS radio-controlled motor with 433 MHz technology and an io radio-controlled motor with 868 MHz radio technology



Wire cross section 3 × 1.5 mm²

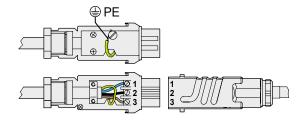
1 = neutral N (blue)

2 = live L (brown)

3 = not in use

PE = earth (green / yellow)

Power connection to hard-wired motor without radio-controlled operation



Wiring cross section $4 \times 1.5 \text{ mm}^2$

1 = neutral N (blue)

2 = up / down command (black)

3 = up / down command (brown)

PE = earth (green / yellow)

Technical data, detailed wiring diagrams and further information regarding motors and electrical accessories can be found in the instruction leaflets supplied with the products.

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01 Awnings with manual operation

Drive side

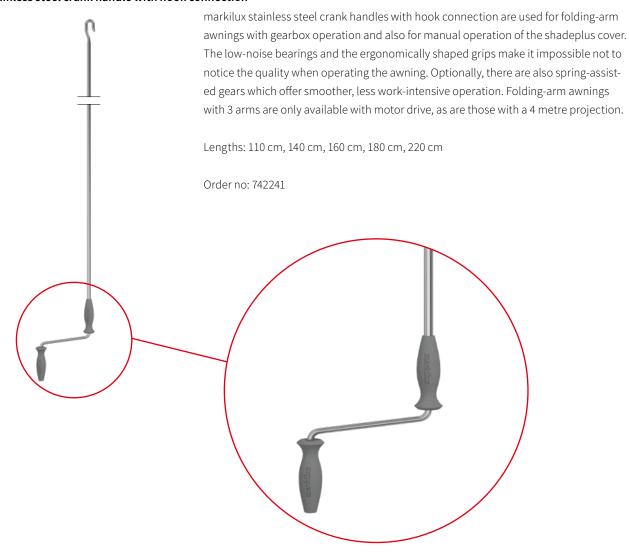
The operation side is specified when looking at the awning from outside (right or left). The crank handle is always on this side. If fitted with a shadeplus, the crank handle is always on the right-hand or left-hand side of the awning. Detailed diagrams showing the exit point of the crank handle are available depending on the awning model.

Crank handle turns in manual operation

In the case of manual operation, approximately 16 crank handle turns are required per metre of awning projection in folding-arm awnings.

Crank handles

Stainless steel crank handle with hook connection



Accessories

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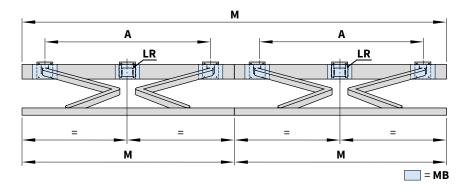
The crank handle retainer made of light grey plastic can be attached to a wall to hold the articulated crank handle for interior operation in place.

It also serves as a storage option for all other crank handles. We recommend you use 2 crank handle retainers to securely fix long crank handles.

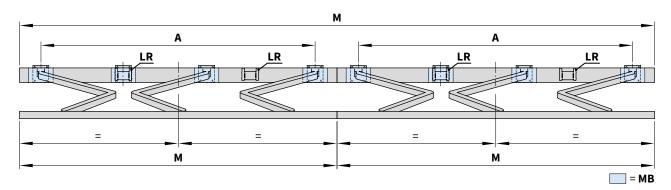
Coupled awnings

Example illustrations of coupled awnings (only available with motor)

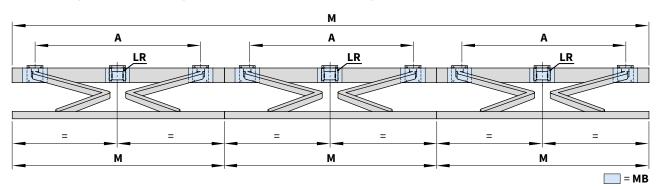
2 field awning, each with 2 folding arms (with 1 motor on either the right or left)



2 field awning, each with 3 folding arms (with 1 motor on either the right or left)



3 field awning, each with 2 folding arms (with 1 motor on either the right or left)



Important information with regard to coupled awnings

A 3 field awning with 9 arms and two motors (tandem drive) is available on request but only in folding-arm awnings without cassette with 2 motors (tandem drive).

If coupled awnings are fitted into a recess or reveal the overall width of the coupled awning must be at least 6 cm less than the width of the opening to allow the awning to be coupled.

We cannot guarantee that the cover will perform evenly if it is split asymmetrically.

A = arm position

LR = rolltex bearing

M = overall awning width

MB = bracket fixture range

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O1 Coupled awnings

One-piece cover

A one-piece cover can be used on several awning models on request in a coupled awning (2 fields, 1 motor) so as to avoid a gap between the two covers.

Junction roller

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In coupled awnings without a one-piece cover, there is a gap between the covers meaning that there is an unshaded area in the centre of the awning. A junction roller on a spring-loaded barrel is fitted to cover this gap and this automatically moves in and out when the awning extends and retracts. A junction roller is available depending on the model and awning size; in striped fabrics the pattern may not match that of the covers. A junction roller is not always possible when the maximum projection for the given width has been ordered. Detailed information regarding these sizes can be found in the section "Bracket installation range" of the corresponding awning model.

Minimum width 2 fields, 4 folding arms with junction roller

Model	1300	1600	1700	1710	3300	5010	6000
Projection		Minimum widths					
150	406	413	406	406	490	495	518
200	506	513	506	506	590	595	618
250	606	613	606	606	690	695	718
300	706	713	706	706	790	795	818
350	806	813	806	806	890	895	918
400	906	913	906	906	_	1012	1032

Minimum width 2 fields, 6 folding arms with junction roller

Model	1300	1600	1700	1710	3300	5010	6000
Projection	Projection Minimum widths						
150	582	952	952	928	990	982	1002
200	732	1052	1052	1028	1090	1082	1102
250	882	1152	1152	1128	1190	1182	1202
300	1032	1252	1252	1228	1290	1282	1302
350	1182	1352	1352	1328	1390	1382	1390
400	1332	_	_	_	_	_	_

Minimum width 2 fields, 4 folding arms with one-piece cover

Model	1300	1600	1700	1710	3300	5010	6000
Projection		Minimum widths					
150	370	_	360	_	404	401	465
200	470	_	460		504	501	565
250	570	_	560	_	604	601	800
300	670	_	660		704	701	850
350	770	_	760	_	804	801	900
400	870	_	_	_	_	_	_

dimensions in cm

Frame colours

Powder coating

The profiles and other visible parts of markilux awnings are generally powder coated. This coating meets the international quality guidelines according to the GISCS (German Industrial Standard for Component Surfaces) and is well tried-and-tested in the moderate climate of Central Europe.

The following are standard colours for markilux awnings – the markilux 1300 forms the exception to this as it is only available as standard in RAL 9016 and RAL 9006. The markilux ES-1 is made of marine grade stainless steel and is not available in a powder-coated finish.

Frame colours	standard	optional
traffic white RAL 9016	\checkmark	_
metallic aluminium RAL 9006	\checkmark	_
grey brown, similar to RAL 8019	\checkmark	_
off-white textured finish 5233 1)	\checkmark	_
stone grey metallic, 5215 1)	\checkmark	_
anthracite metallic, 5204 1)	\checkmark	_
Havana brown textured finish, 5229 1)	\checkmark	_
Non-standard colours	_	\checkmark

1) textured finish

The current colour and model-related delivery times can be viewed at any time in the markilux PRO password-protected specialist dealer area. A supplementary overview "Frame colours" can to be found in the current markilux price list.



Additional frame colours from the RAL range (approx. 70% gloss finish) are available for bespoke order with a longer delivery time: Surcharge according to the current price list (Non-standard RAL colour). Metallic, finely textured, pearl and matt finishes as well as those from other colour ranges (DB, Tiger etc.) are available on request.

Components shown in the catalogue with a 5-digit part number and a dot in 6th place are coated in the awning or bespoke colour as a rule. Components with a 6-digit part number are only available in one colour.

Increased corrosion protection

If higher demands are to be placed on the powder coating finish e.g. in coastal areas with a higher salt concentration and more moisture in the air or in places where there is strong industrial pollution, it is recommended that – to reduce the risk of the formation of hairline corrosion – a suitable chemical pretreatment is used.

To this end, the GISCS has – over the course of many years – developed a special coating process. Aluminium components, for example, are pre-treated in advance of the actual powder coating process. This present stage in technological advancement represents a considerable improvement in the prevention of hairline corrosion caused by the conditions cited above.

The description of this process is summarised in the classification and test procedures for the coating of individual components under RAL RG 631 for aluminium and RAL GZ 663 for steel as well as the stipulations laid down in Qualicoat.

On request, markilux awnings are available with this coating, in which the component is pre-anodised before being powder coated and complies with RAL RG 631 and GZ 663; delivery times correspond to those of bespoke colours, the surcharge can be found under "finishes with increased resistance to corrosion" in the current price list.

Please submit orders with the following note: "powder coating with improved corrosion protection", alternatively this box can be ticked on the markilux order form.

General information regarding the maintenance of powder-coated awning components: In locations with highly polluting emissions or an aggressive climate, the surface should be cleaned thoroughly at regular intervals of the "catalysts" which initiate the onset of hairline corrosion (so-called initiating salts, especially chloride) depending on the ambient levels in the atmosphere.

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01 Important details when ordering an awning

Every awning is made to measure

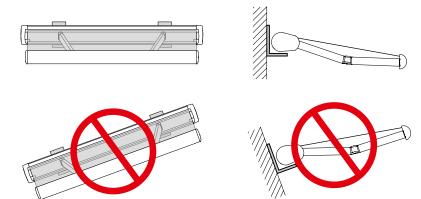
Please take exact measurements! Blinds and awnings cannot be returned or exchanged as each product is made to measure. Make a special note if an awning is to be fitted into a recess or reveal and note the recess/reveal dimensions separately on the order. Every markilux awning is produced individually and carries a production number, making it a unique product which can be identified at any time. If coupled awnings are fitted into a recess or reveal the overall width of the coupled awning must be at least 6 cm less than the width of the opening to allow the awning to be coupled.

An awning's problem-free operation can only be guaranteed if it is installed horizontally and fitted to a vertical substrate. The brackets must be aligned perfectly with one other.

Detailed information regarding installation can be found in the markilux installation instructions supplied.

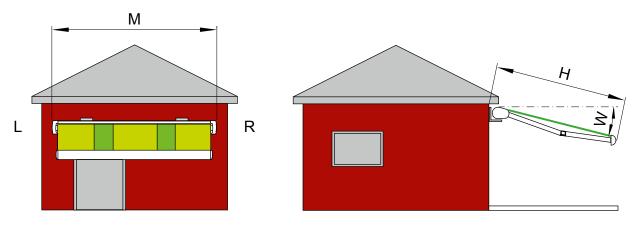
Up-to-date technical data can be found in

the restricted area under "Area for Specialist Dealers" at www.markilux.com.



Overall awning width and projection (order dimensions)

The awning width (M) is the maximum width of the awning and the order width. The nominal projection (H) is measured with the awning extended at a pitch (W) of approx. 15° from the back of the fixture brackets over the cover to the leading edge of the front profile. The operation side is given left (L) or right (R) looking at the awning from the outside.



Cover width

The width of the awning cover is always narrower than that of the awning.

Minimum width

The minimum awning width is the smallest possible awning width which still guarantees problem-free functionality of the awning.

Bespoke arms

In addition to the folding arms we stock for standard projections, custom-made arms can be made individually on request (surcharge, longer delivery time). Smaller widths (awning minimum width with bespoke arms) which still accommodate the same projection are usually possible with these custom-made arms – see table "Dimensions and configuration options / single unit"). Awnings can also be produced with intermediate sizes in the projection on request. The minimum awning width, which is determined by the projection, guarantees that the folding arms fit into the cassette next to one another when the awning is retracted, or do not protrude to the side in open awning systems.

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Awning cover dimensions

The awning cover is always narrower than the width of the awning. The cover deductions vary according to the awning model and operation type. The positioning of the awning and shadeplus covers on the frame may be asymmetrical depending on the design constraints of the awning.

The measurements in the table are intended as non-binding guidelines which can be used as a basis for sound sales advice. If replacement covers are to be ordered, the exact, original cover size should be measured on site. Ideally, you would send us the markilux awning production number. On the basis of the production number, we can check the original cover dimensions here in the factory.

Overview of the cover dimensions of markilux awnings

markilux awning model	Operation	Cover width = awning width	Cover length = awning projection	Shadeplus cover width = awning width
Cassette awnings				
markilux ES-1	motor	– 110 mm	+ 200 mm	
markilux MX-1	motor	- 300 mm	+ 100 mm	- 300 mm
markilux MX-1 compact	motor	- 280 mm	+ 100 mm	- 280 mm
markilux 6000	motor / gear operation	-210 mm	+ 100 mm	– 210 mm
IIIai Kiiux 6000	motor with manual override 1)	– 217 mm	+ 100 mm	- 210 mm
markilux 5010	motor / gear operation	– 160 mm	+ 150 mm	– 180 mm
IIIai Kilux 3010	motor with manual override 1)	– 166 mm	+ 150 mm	– 180 mm
markilux 3300	motor / gear operation	– 150 mm	+ 150 mm	_
markilux 970	Motor / gear operation	- 320 mm	+ 130 mm	- 320 mm
markilux MX-3	Motor / Getriebe	– 290 mm	+ 130 mm	_
markilux 990	motor / gear operation	– 250 mm	+ 130 mm	_
markitux 990	motor with manual override 1)	– 257 mm	+ 130 mm	-
markilux 1710 / 1710 stretch	motor / gear operation	– 135 mm / – 145 mm	+ 150 mm	_
Semi-cassette awnings				
markilux 1600	motor / gear operation	- 260 mm / - 272 mm	+ 180 mm	- 260 mm
markilux 1600	motor with manual override 1)	– 279 mm	+ 180 mm	- 279 mm
markilux 1600 stretch	motor / gear operation	- 260 mm / - 272 mm	+ 180 mm	- 260 mm
markilux 1650	motor / gear operation	- 260 mm / - 272 mm	+ 180 mm	_
Open awning systems				
markilux 930	motor / gear operation	- 270 mm / - 300 mm	+ 260 mm	-
markilux 1300	motor / gear operation	- 144 mm / - 165 mm ²⁾	+ 250 mm	– 165 mm
markilux 1700 /	gear operation	– 135 mm	+ 150 mm	-
1700 stretch	motor	– 125 mm	+ 150 mm	_
Side screen				
markilux 790	_	- 130 mm	_	-

1) Radio-controlled motor with manual override

2) – 180 mm in awnings ≥ 5001 mm

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