



markilux  
Collection

Specifi-  
cation

markilux  
1700

markilux  
1700  
stretch

markilux  
1710

markilux  
1710  
stretch

markilux  
8800 /  
8800 zip

markilux  
8850

markilux  
889 /  
889 zip

markilux  
869 /  
869 zip

## markilux Technical Information

markilux  
pergola 110

markilux  
pergola 210

markilux  
syncra 2 fix  
/ uno fix  
with  
folding-arm  
awnings

markilux  
syncra 2 fix  
/ uno fix  
with pergola  
110 / 210

Optional  
Accessories

**markilux**

Technical  
Information

## Installation of awnings and awning systems (in line with EN 13561)

markilux awnings and pergola systems intended for outdoor use meet the requirements of European Standard EN 13561 for blinds and awnings 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 wind resistance class 2 or 3 (not necessarily in the case of sizes that exceed our standard specification). Information in relation to the wind resistance certification of each individual awning models can be found in the diagram on the right.

The wind resistance class 2 corresponds to Beaufort 5 or a wind speed of up to 10.4 metres per second (m/s).

The wind resistance class describes the wind speed at which an awning may be used. 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.







**markilux**  
 Schmitz-Werke GmbH + Co. KG  
 Hansestrasse 87  
 D-48282 Emsdetten

EN 13561  
 awnings for exterior applications

**wind resistance class 2**  
 markilux 1710, 1710 stretch, 1700, 1700 stretch, 8850, 869 (depending on the size)

**wind resistance class 3**  
 markilux 8800, 869 (depending on the size), markilux pergola 110 / 210

wind resistance class 0	wind resistance class 1	wind resistance class 2	wind resistance class 3
			
Wind resistance class 0 corresponds either to performance criteria that we were not asked to meet or to those that have not been measured or to a product that does not fulfil the requirements of wind resistance class 1.	The awning may remain extended up to a maximum of Beaufort force 4.	The awning may remain extended up to a maximum of Beaufort force 5.	The awning may remain extended up to a maximum of Beaufort force 6.
	Definition according to Beaufort: <b>moderate breeze, moderate wind</b> The wind moves twigs and smaller branches, lifts dust and loose paper	Definition according to Beaufort: <b>fresh breeze, fresh wind</b> Small deciduous trees start to sway, whitecaps start to form on waves	Definition according to Beaufort: <b>strong breeze</b> Large boughs move, umbrellas are difficult to keep under control, telephone wires "whistle" in the wind
This awning may not be used when there is any wind.	wind speed 20-27 km/h = 5.5-7.4 m/s = 12-16 mph	wind speed 28-37 km/h = 7.5-10.4 m/s = 17-23 mph	wind speed 38-48 km/h = 10.5-13.4 m/s = 24-30 mph

The wind resistance class is only fulfilled if the blind or awning is fitted correctly.

Installation may only be carried out by qualified, professional dealers with appropriate fitting experience. The installation instructions supplied with the awning and especially the section referring to safety regulations must be read - without fail - before fitting the awning.

The delivery does not include fixing bolts and rawlplugs. Because different countries and regions have the most widely varying of substrates, which, because of their sheer volume cannot be detailed here, it would make sense for you to get advice from your local installation specialist so that a suitable choice of fixing materials can be made.

The aim of our oral and written advice is to put you in a position to be able to recommend the best possible uses for our blinds and awnings. This, however, does not release you from your obligation to convince yourself - through your own conscientious analysis - of the suitability of our products and services for the application you intend to use them 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.

**Important** - the permitted fixture load must always be greater than that shown in the table!

**Important** - by taking suitable measures to seal around the fixing holes you should ensure that even in the long term the façade of the building cannot suffer from the ingress of damp (rain water). On the coast and in industrial areas stainless steel fixing materials must be used.

Please also take note of the "Technical Advice Guidelines with Regard to the Sale and Fixture Folding-arm Awnings" published by the IRTS (BKTex) Association.

Alterations such as additions or modifications, which diverge from our installation instructions, are not permitted. Bespoke constructions require our prior and express approval in writing!

Automatic control mechanisms are to be adjusted to react to the appropriate wind resistance class.

## Installation of the markilux syncra with folding-arm awnings

The wind resistance classes conform to the wind strengths as described according to Beaufort in the table below. They outline the wind speeds at which each awning type may be used. 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.

With **fully retracted** awnings the syncra system is rated to a dynamic pressure of 700 N/m<sup>2</sup> (wind zones 1-3, combination of terrain categories II and III). If the awnings are extended a constant wind pressure of 70 N/m<sup>2</sup> or 110 N/m<sup>2</sup> has been assumed. This corresponds to wind resistance class 2 or 3 according to EN 13561.





The awnings may be used only up to and including these wind resistances. These wind resistance classes are only fulfilled if the system has been installed correctly.

In this respect our recommendations with regard to the concrete foundations, the fixture bolts and the stabilisation boxes must be followed.

**markilux**  
Schmitz-Werke GmbH + Co. KG  
Hansestrasse 87  
D-48282 Emsdetten

**wind resistance class 2**  
markilux syncra with extended  
markilux folding-arm awnings  
for exterior applications

**wind resistance class 3**  
markilux syncra with extended markilux pergola 110 / 210  
for exterior applications

wind resistance class 0	wind resistance class 1	wind resistance class 2	wind resistance class 3
			
Wind resistance class 0 corresponds either to performance criteria that we were not asked to meet or to those that have not been measured or to a product that does not fulfil the requirements of wind resistance class 1.	The awning may remain extended up to a maximum of Beaufort force 4.  Definition according to Beaufort: <b>moderate breeze, moderate wind</b> The wind moves twigs and smaller branches, lifts dust and loose paper	The awning may remain extended up to a maximum of Beaufort force 5.  Definition according to Beaufort: <b>fresh breeze, fresh wind</b> Small deciduous trees start to sway, whitecaps start to form on waves	The awning may remain extended up to a maximum of Beaufort force 6.  Definition according to Beaufort: <b>strong breeze</b> Large boughs move, umbrellas are difficult to keep under control, telephone wires "whistle" in the wind
This awning may not be used when there is any wind.	wind speed 20-27 km/h = 5.5-7.4 m/s = 12-16 mph	wind speed 28-37 km/h = 7.5-10.4 m/s = 17-23 mph	wind speed 38-48 km/h = 10.5-13.4 m/s = 24-30 mph

The delivery of the markilux syncra does not include fixing bolts and rawplugs. Because different countries and regions have the most widely varying of substrates, which, because of their sheer volume cannot be detailed here, it would make sense for you to get advice from your local installation specialist so that a suitable choice of fixing materials can be made.

When determining the fixture materials for the markilux syncra fix the following loads per fixture plate must be taken into account:

Load per fixture plate	Compressive force (N)	Sheer force (V)	Torque (M) from the sheer force
fixture plates for the outer support posts (1 to 3 field units)	5.00 kN	1.14 kN	5.90 kNm
fixture plate for the inner support post(s) (2 to 3 field units)	5.79 kN	1.85 kN	11.04 kNm

**Important** - By taking suitable measures to seal around the fixing holes you should ensure that the surface to which the awning/ syncra has been fitted (whether face, top or bottom fix) cannot suffer from the ingress of dampness (rain water). On the coast and in industrial areas stainless steel fixing materials must be used.

The aim of our oral and written advice is to put you in a position to be able to recommend the best possible uses for our blinds and awnings. This, however, does not release you from your obligation to convince yourself - through your own conscientious analysis - of the suitability of our products and services for the application you intend to use them 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.

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110 / 210

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## Important advice!

### Assembly advices

Installation may only be carried out by qualified, professional dealers with appropriate fitting experience. The installation instructions supplied with the awning and especially the section referring to safety regulations must be read - without fail - before fitting the awning.

Automatic control mechanisms are to be adjusted to react to the appropriate wind resistance class.

### Construction approval

N.B! This system may be subject to planning permission depending on the laws and regulations as specified by local authorities.

### Electrical safety instructions:

The power supply cables for electrical connections must be laid and installed by a qualified electrician (acc. to VDE 0100). Installation must be carried out in accordance with the instructions provided by the manufacturer (e.g. for motor drives and automatic controls).

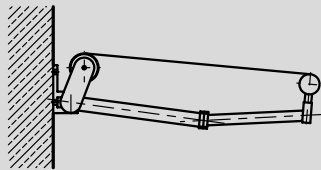
Modifications - especially with regard to an electrical component or the power supply cables - require our express authorisation in writing.

Make sure that the power supply cables, that have already been laid, are disconnected from the power supply during installation.

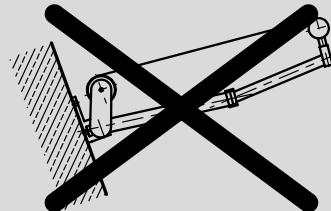
Alterations such as additions or modifications, which diverge from our installation instructions, are not permitted. Bespoke constructions require our prior and express approval in writing!

### N.B!

Smooth operation of a folding-arm awning will depend on its having been installed horizontally and the brackets having been fitted plumb.



correct



incorrect



correct

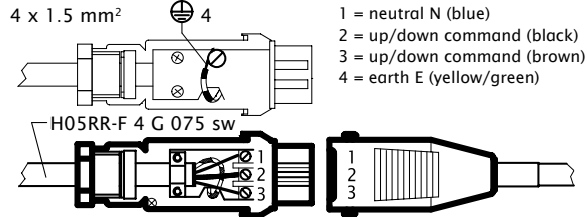


incorrect

## Motor drives for folding-arm awnings

### Hard-wired motor drives

number of folding arms	operation side	order no.	motor data (50 Hz   230 V)	Nm / rpm	silentec (6000)	1710	1710 stretch	1700	1700 stretch
2	R/L	752691	P = 230 W   I = 1.18 A	40/17	•	•	•		
	R/L	755451	P = 300 W   I = 1.3 A	45/10				•	•
3/4	R/L	710581	P = 320 W   I = 1.40 A	55/17		•• <sup>1</sup>			
	R/L	764101	P = 280 W   I = 1.25 A	60/12				•• <sup>1</sup>	
6	R/L	710591	P = 400 W   I = 1.80 A	85/17		••			
	R/L	751101	P = 320 W   I = 1.50 A	80/12				••	

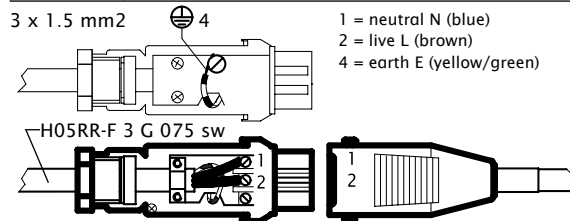


- single unit
- coupled unit
- <sup>1</sup> single unit in the case of 3 arms  
coupled unit in the case of 4 arms
- R/L right and left

wiring diagram for Hirschmann connector, hard-wired motor

### radio controlled motors

number of folding arms	operation side	order no.	motor data (50 Hz   230 V)	Nm / rpm	silentec 6000	1710	1710 stretch	1700	1700 stretch
2	R/L	725021	P = 240 W   I = 1.00 A	35/17		•	•		
	R/L	798851	P = 240 W   I = 1.10 A	35/17				•	•
3/4	R/L	763351-1	P = 290 W   I = 1.25 A	55/17		•• <sup>1</sup>			
	R/L	763381-1	P = 290 W   I = 1.25 A	55/17				•• <sup>1</sup>	
6	R/L	763391	P = 400 W   I = 1.50 A	85/17				••	
	R/L	763411-1	P = 400 W   I = 1.80 A	85/17		••			



- single unit
- coupled unit
- <sup>1</sup> single unit in the case of 3 arms  
coupled unit in the case of 4 arms
- \* 433 MHz technology
- R/L right and left

wiring diagram for Hirschmann connector, radio-controlled motor

## Motors for vertical blinds & awnings

### Hard-wired motor drives

869	operation side	order no.	rated power   current (50 Hz, 230 V)	Nm / rpm
•	R/L	752721	P = 196 W   I = 0.85 A	16/23

- single unit
- R/L right and left

See wiring diagram for the plug connector conforming to hard-wired motor drives for folding-arm awnings.

### Radio controlled motors

869	operation side	order no.	rated power   current (50 Hz, 230 V)	Nm / rpm
•	R/L	710401	P = 170 W   I = 0.80 A	25/17

- single unit
- R/L right and left
- \* 433 MHz technology

See wiring diagram for the plug connector conforming to RTS motor drives for folding-arm awnings.

## Motor drives for conservatory awnings

### Hard-wired motor drives

8800	8850	889	Operation side	order no.	rated power   current (50 Hz, 230 V)	Nm / rpm
		•	R/L	752721	P = 196 W   I = 0.85 A	16/23
	•		R/L	765591	P = 260 W   I = 1.15 A	50/11
• <sup>1</sup>			R/L	777691	P = 246 W   I = 1.20 A	40/17
•• <sup>1</sup>			R/L	777701	P = 260 W   I = 1.15 A	60/11
•			R/L	783391	P = 246 W   I = 1.20 A	40/17
••			R/L	783401	P = 260 W   I = 1.15 A	60/11

- single unit
- coupled unit
- <sup>1</sup> for units with zip system
- R/L right and left

See wiring diagram for the plug connector conforming to hard-wired motor drives for folding-arm awnings.

### Radio-controlled motors

8800	8850	889	Operation side	order no.	rated power   current (50 Hz, 230 V)	Nm / rpm
		•	R/L	710401	P = 170 W   I = 0.80 A	25/17
• <sup>1</sup>			R/L	777721	P = 240 W   I = 1.10 A	35/17
•• <sup>1</sup>			R/L	777731	P = 290 W   I = 1.25 A	55/17
•			R/L	783631	P = 240 W   I = 1.10 A	35/17
••	•		R/L	783641	P = 290 W   I = 1.25 A	55/17

- single unit
- coupled unit
- <sup>1</sup> for units with zip system
- \* 433 MHz technology
- R/L right and left

See wiring diagram for the plug connector conforming to RTS motor drives for folding-arm awnings.

## Motors for the markilux pergola

### Hard-wired motor drives

pergola 110	pergola 210	Operation side	order no.	rated power   current (50 Hz, 230 V)	Nm / rpm
• <sup>1</sup>	• <sup>1</sup>	R/L	777691	P = 246 W   I = 1.20 A	40/17
•• <sup>1</sup>	•• <sup>1</sup>	R/L	777701	P = 260 W   I = 1.15 A	60/11
•	•	R/L	783391	P = 246 W   I = 1.20 A	40/17
••	••	R/L	783401	P = 260 W   I = 1.15 A	60/11

- single unit
- coupled unit
- <sup>1</sup> for units with zip system
- R/L right and left

See wiring diagram for the plug connector conforming to hard-wired motor drives for folding-arm awnings.

### Radio controlled motors

pergola 110	pergola 210	Operation side	order no.	rated power   current (50 Hz, 230 V)	Nm / rpm
• <sup>1</sup>	• <sup>1</sup>	R/L	777721	P = 240 W   I = 1.10 A	35/17
•• <sup>1</sup>	•• <sup>1</sup>	R/L	777731	P = 290 W   I = 1.25 A	55/17
•	•	R/L	783631	P = 240 W   I = 1.10 A	35/17
••	••	R/L	783641	P = 290 W   I = 1.25 A	55/17

- single unit
- coupled unit
- <sup>1</sup> for units with zip system
- \* 433 MHz technology
- R/L right and left

See wiring diagram for the plug connector conforming to RTS motor drives for folding-arm awnings.

## Motors for the markilux sundrive

1700	1700 stretch	5010	6000	operation side	order no.	voltage	Nm / rpm
•	•	•	•	R/L	732411	12 V DC	40/7

- single unit (2 folding arms)
- R/L right and left

Phoenix Contact 1642153



awning



markilux sundrive

markilux 1700 / 1700 stretch			
1	plus (brown)	1	plus (cable 1, black)
2	minus (blue)	2	minus (cable 2, black)
3	-	3	- (cable 3, black)
4	-	4	- (yellow / green)

Phoenix Contact 1642153



awning



markilux sundrive

markilux 6000			
1	plus (cable 1, black)	1	plus (cable 1, black)
2	minus (cable 2, black)	2	minus (cable 2, black)
3	limit switch (cable 3, black)	3	limit switch (cable 3, black)
4	limit switch (yellow / green)	4	limit switch (yellow / green)

markilux 5010			
1	plus (brown)	1	plus (cable 1, black)
2	minus (blue)	2	minus (cable 2, black)
3	limit switch (black)	3	limit switch (cable 3, black)
4	limit switch (black)	4	limit switch (yellow / green)

wiring diagram for the markilux sundrive

## Minimum width of coupled folding-arm awnings

(2 fields if split symmetrically)

### Minimum width of coupled units with a junction roller

extension	minimum width			
	4 folding arms		6 folding arms	
	1710	1700	1710	1700
150	450	402	920	944
200	550	502	1020	1044
250	650	602	1120	1144
300	750	702	1220	1244
350	850	802	1320	1344
400	950	902	---	---

dimensions in cm

### Minimum width of coupled units with a one-piece cover

Extension	minimum width	
	4 folding arms	
	1710	1700
150	---	360
200	---	460
250	---	560
300	---	660
350	---	760
400	---	---

dimensions in cm

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## Tolerances in the unit height

	from	to	tolerances
tolerances in the extension of conservatory awnings	0	1500	+ 2 / - 2
	1510	2500	+ 3 / - 3
	2510	6500	+ 4 / - 4

dimensions in mm

	from	to	tolerances
unit height tolerances of vertical blinds and awnings	0	1500	+ 2 / - 2
	1510	2500	+ 3 / - 3
	2510		+ 4 / - 4

dimensions in mm

## Awning cover tolerances

	from	to	tolerances
tolerances in the cover width and length	0	2000	+ 5 / - 5
	2010	4000	+ 8 / - 8
	4010	6000	+ 12 / - 12
	6010	7000	+ 15 / - 15

dimensions in mm

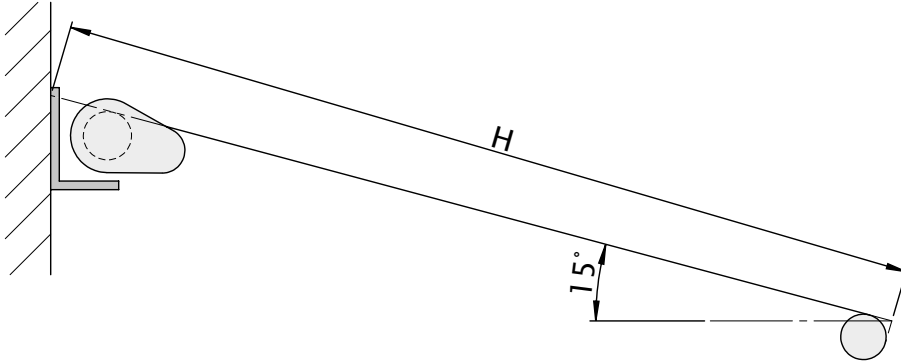


## Definition of the projection of folding-arm awnings

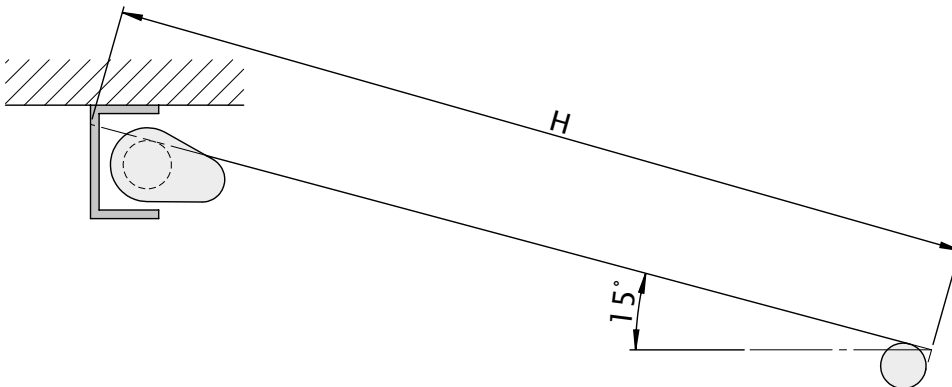
### Definition:

The nominal projection is measured with the awning extended at a pitch of approx. 15° from the back of the fixture brackets over the cover to the leading edge of the front profile. The tolerance in the projection is + 40 mm / - 40 mm.

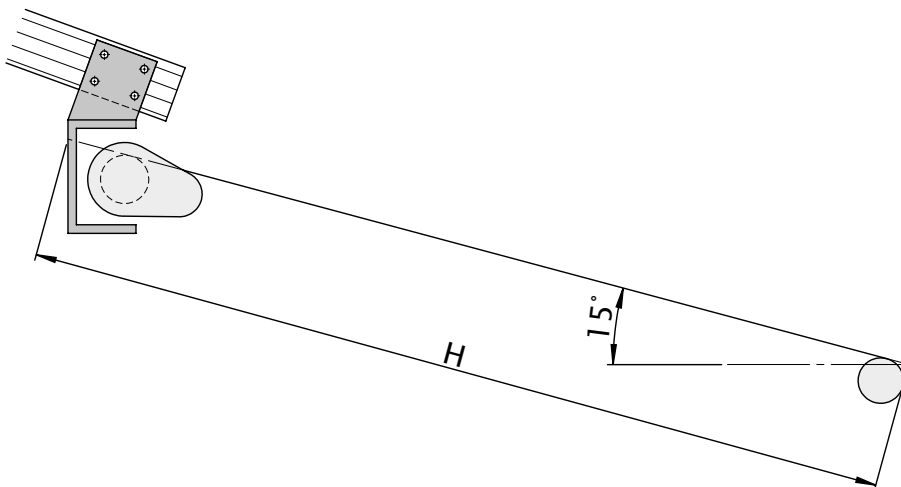
### Face fixture



### Top fixture



### Eaves / roof timber fixture



H = drop

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cationmarkilux  
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110 / 210Optional  
AccessoriesTechnical  
Information