

Technical Manual  
Pergola  
PERSA





# Contents

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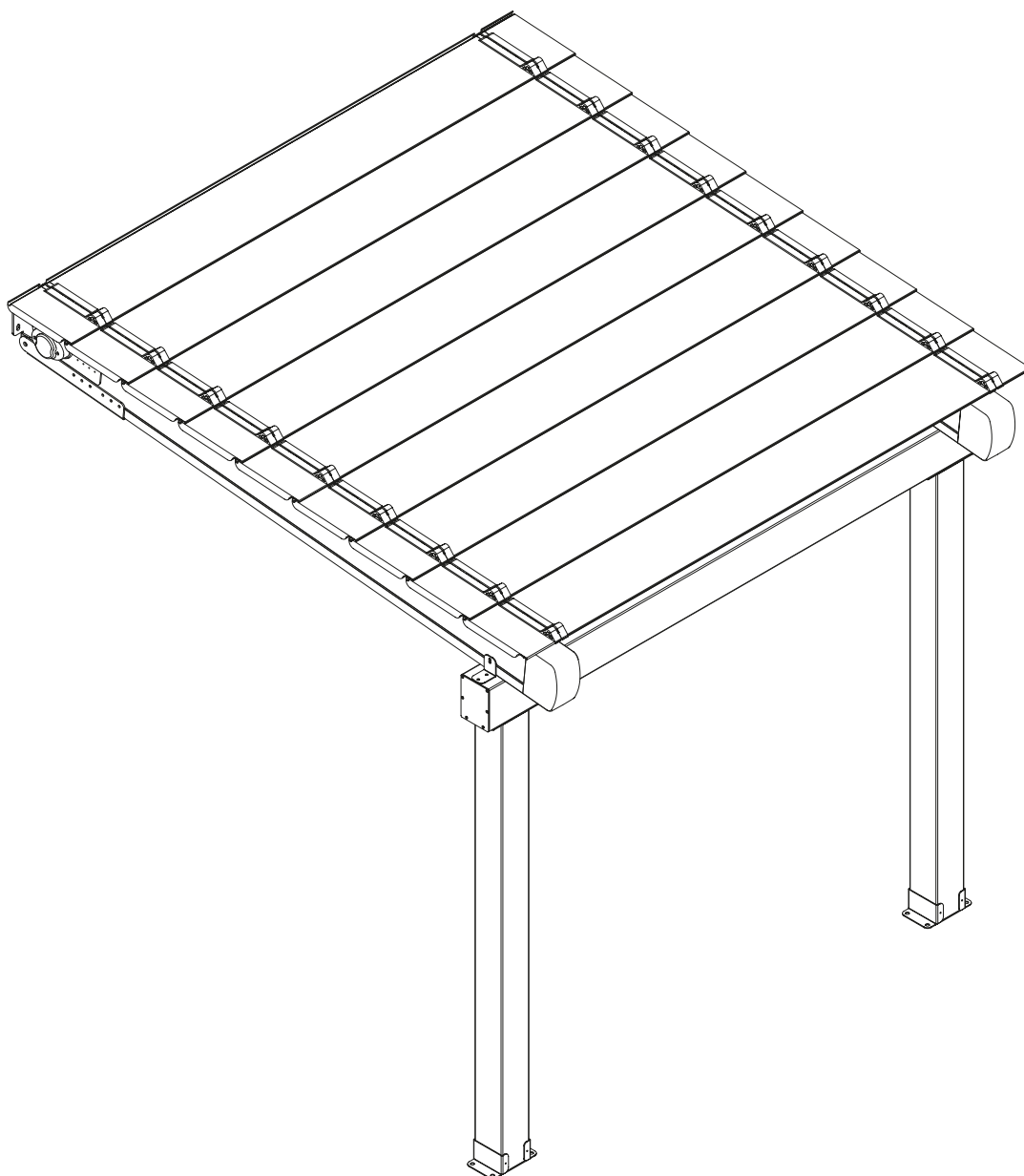
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# Persa

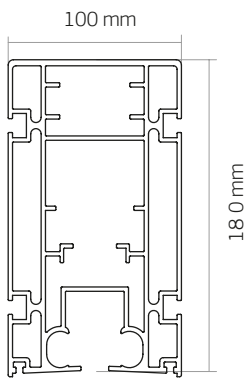
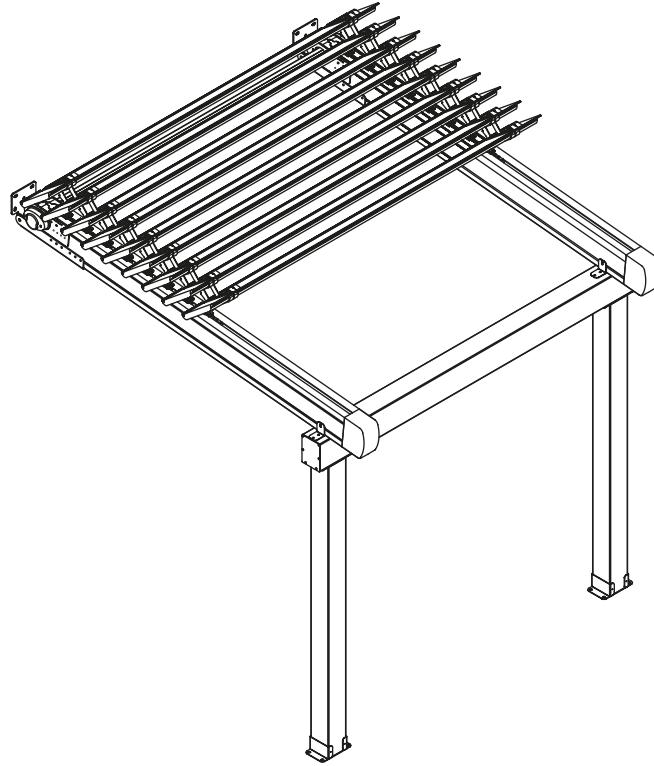
General view of the pergola

A folding, retractable roof pergola, exclusively designed by Metaform AVEE. Sturdy construction made of an aluminium alloy of top quality and aesthetics, using 25x3 aluminium panels, with insulation capabilities.

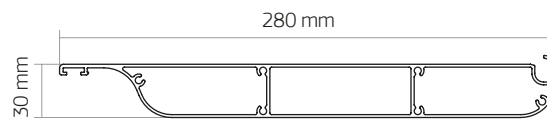
The controlled motion of the blinds provides ventilation to the space along with shading, protection from inclement weather and snowfall!



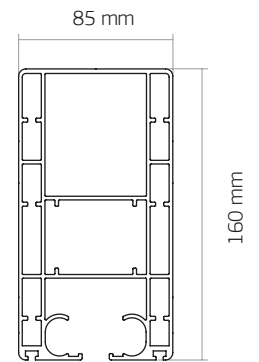
## Profile cross-sections



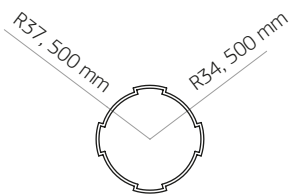
① rafter 100X180



② panel



③ rafter 85X160



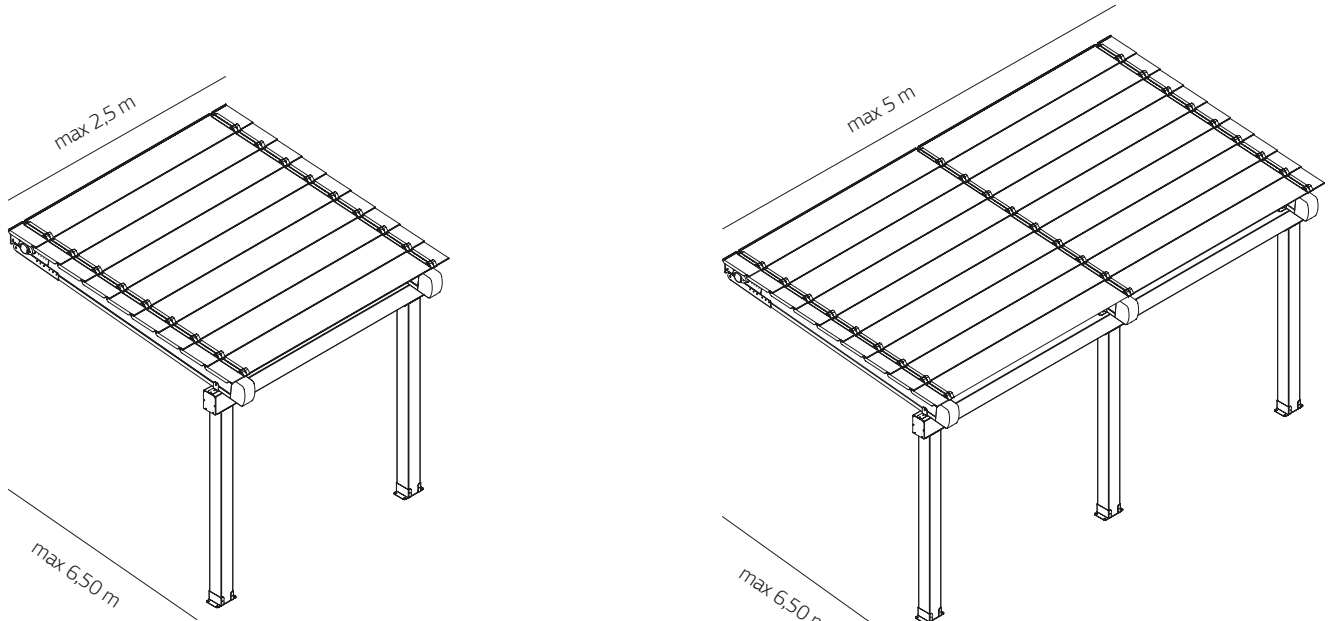
④ tube  
(not shown in  
diagram)

The pergola Persa can be made either by rafter 180X100 or 160X85.

# Persa

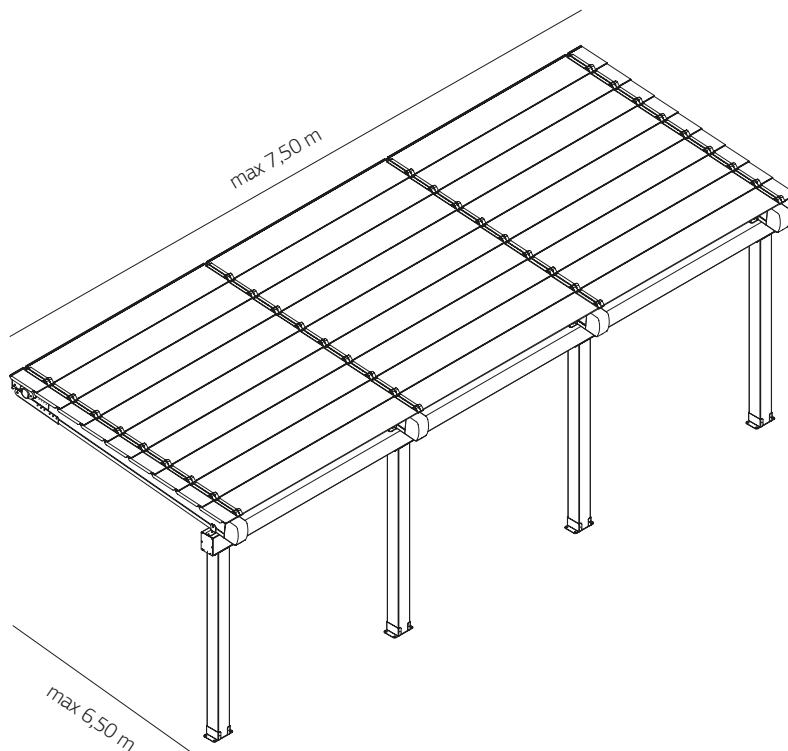
Maximum pergola projection & maximum rafter distance

Maximum rafter-to-rafter distance 2.5 metres.



2 rafters

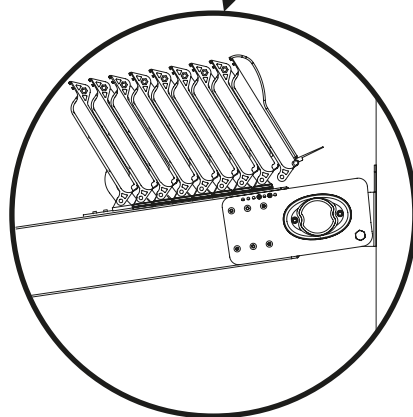
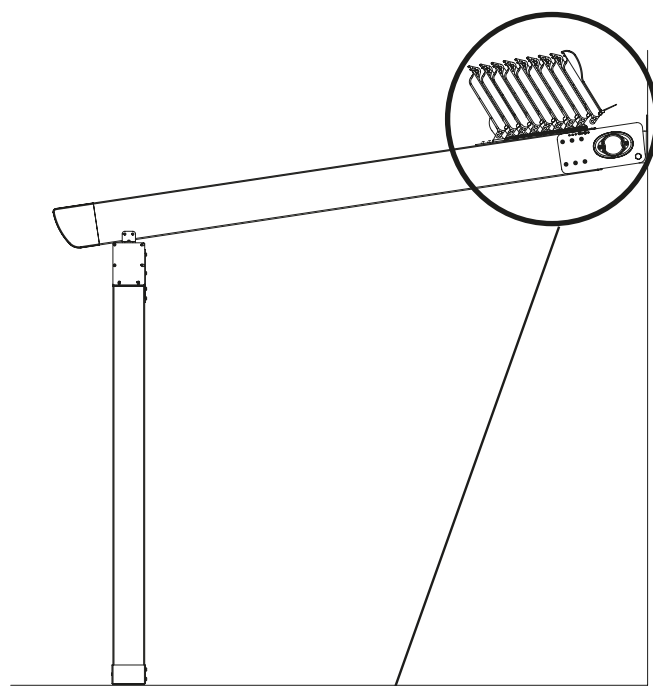
3 rafters



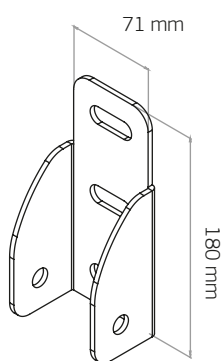
4 rafters

The Persa pergola can reach an projection of up to 6.5 metres and an axis length of up to 12 metres with six rafters.

# Persa 160x85 pergola support options

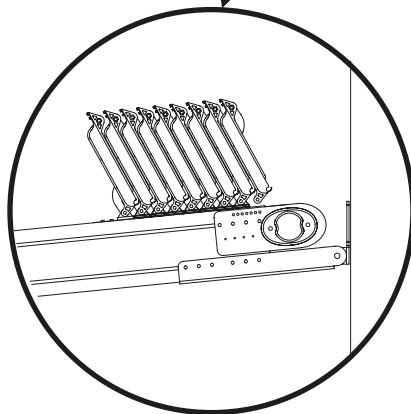
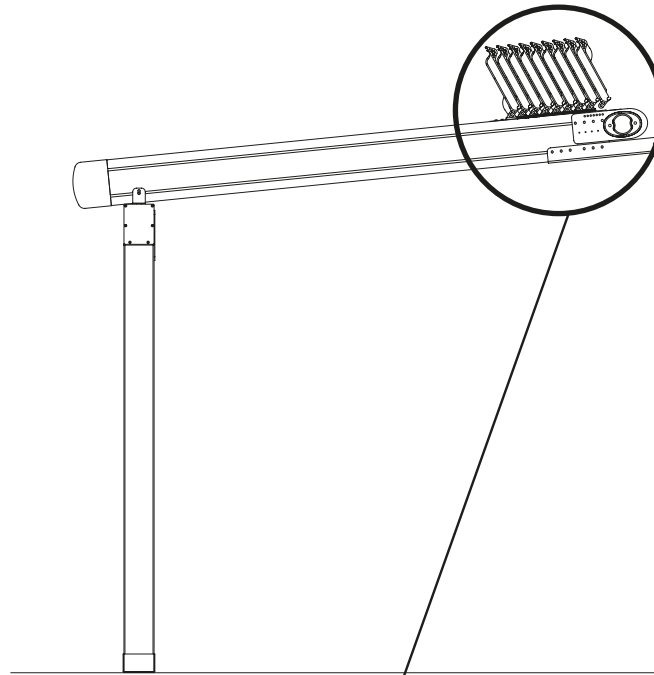


wall base

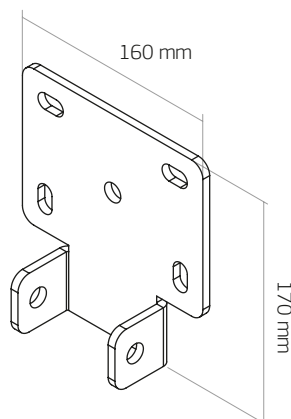


# Persa

Persa 180X100 pergola support options

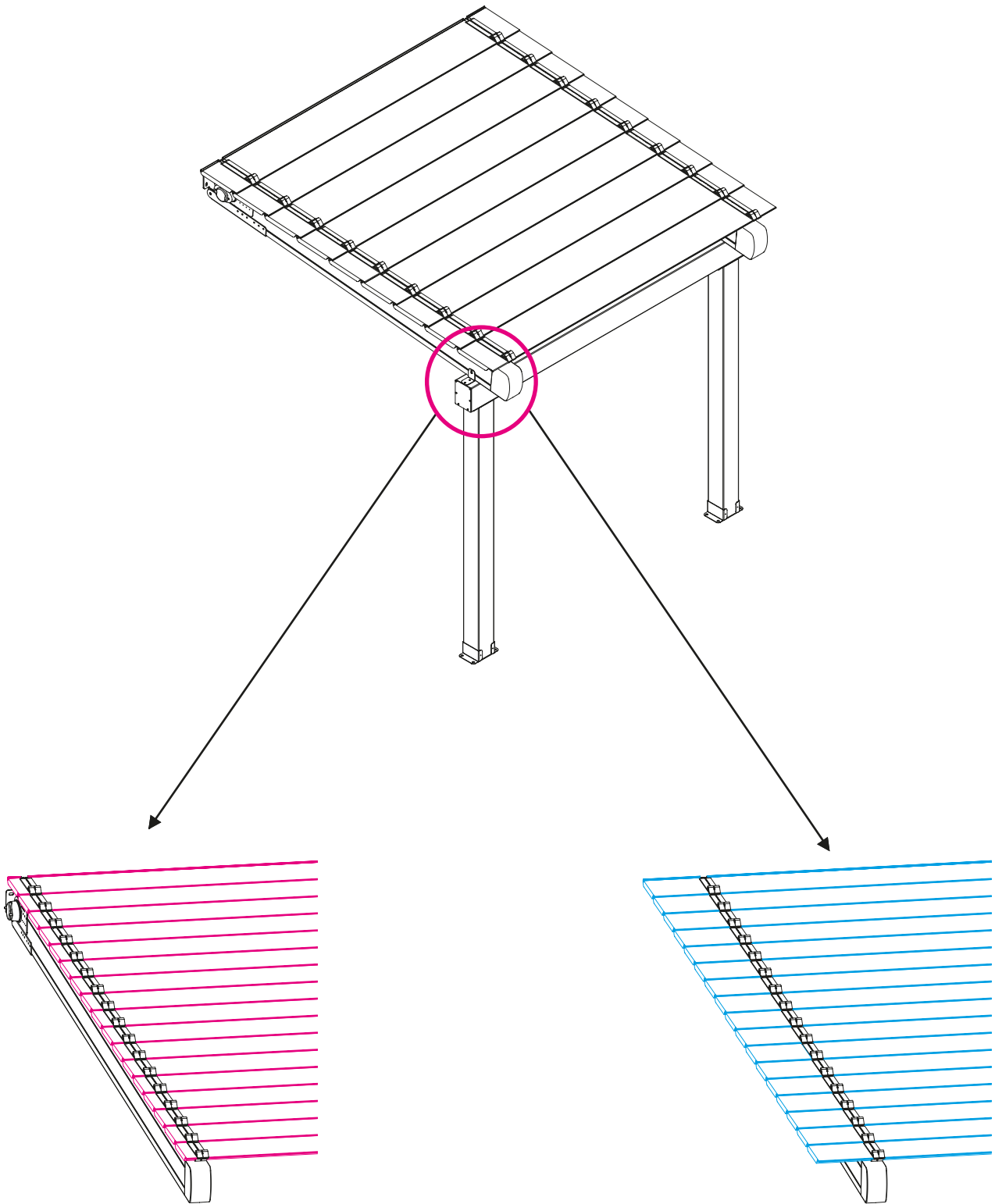


wall base





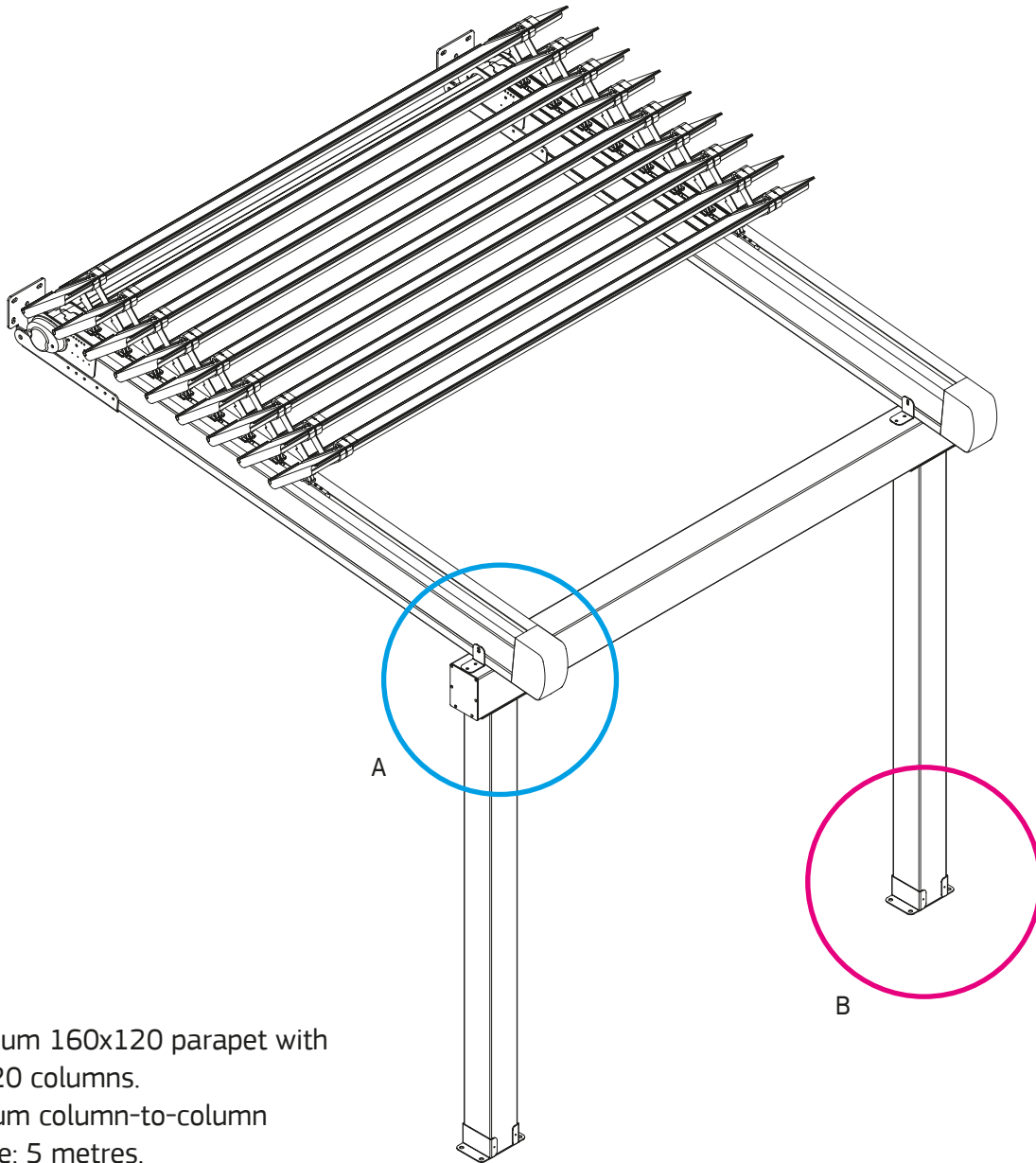
## Panels overhang choice



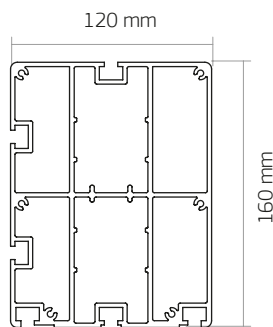
Panels can extend a minimum of 1 cm from the rafter and a maximum of 25 cm.

# Persa

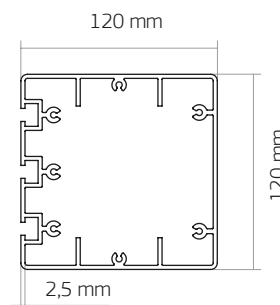
Details of the connection of a pergola Persa 180X100 with a 160x120 parapet



Aluminium 160x120 parapet with 120x120 columns.  
Maximum column-to-column distance: 5 metres.



Parapet 160x120

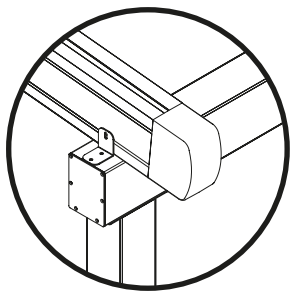


Column 120x120

## Details of the connection of a pergola Persa 180X100 with a 160x120 parapet

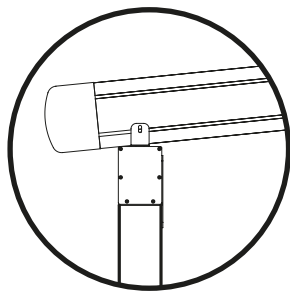
### Details of the rafter-parapet connection

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A1

External detail of the Rafter-to-Parapet connection. The total parapet length is always 2 cm longer than the total pergola length.

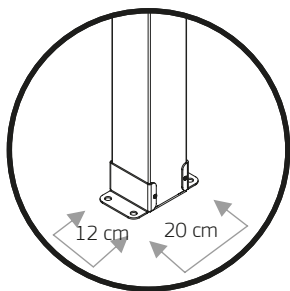


A2

Persa 180X100 pergola with a protruding rafter and 14 cm Aluminium Cover (Corbel) on a 160x120 parapet.

### Details of the parapet column and rainwater extraction.

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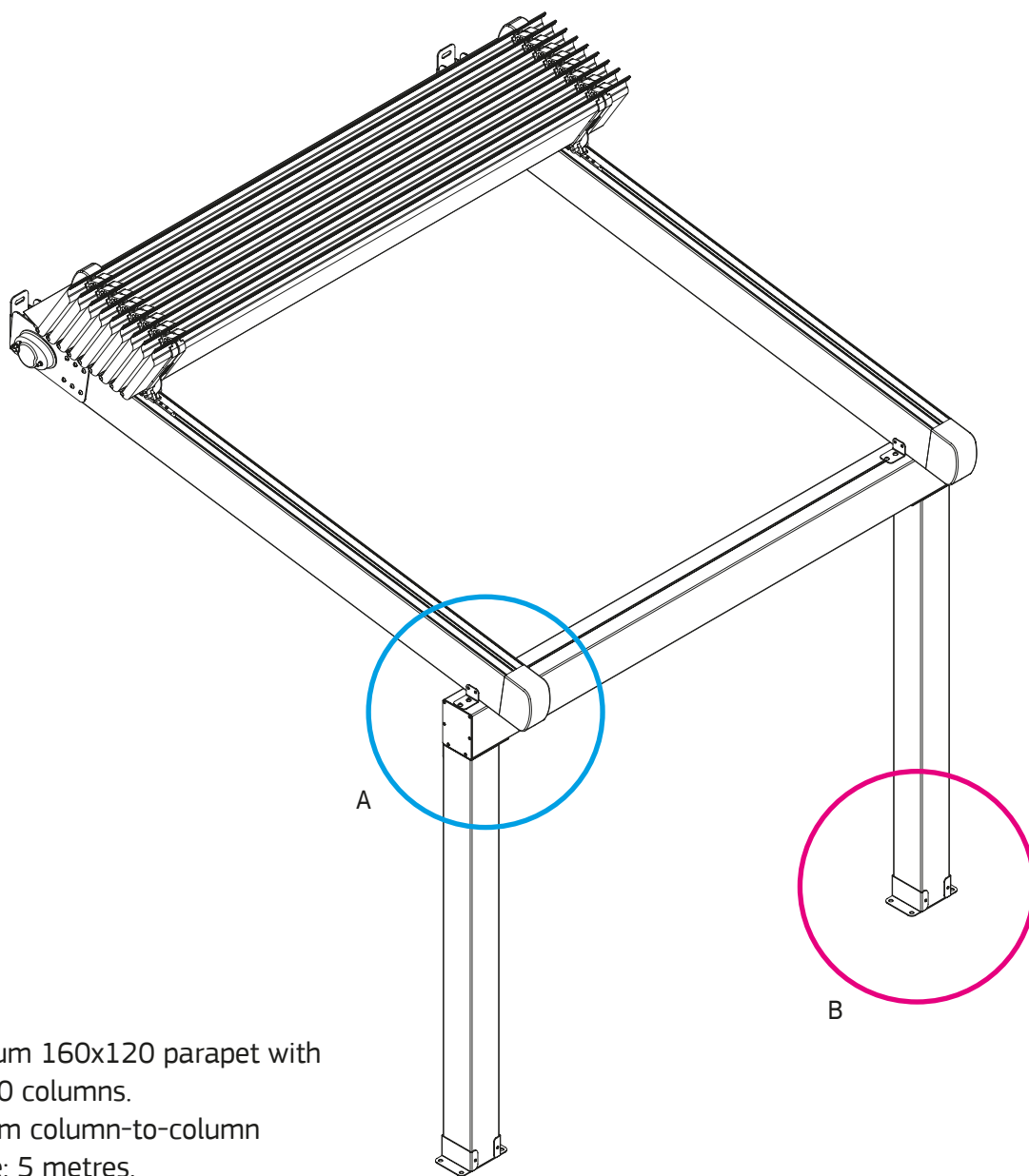


B1

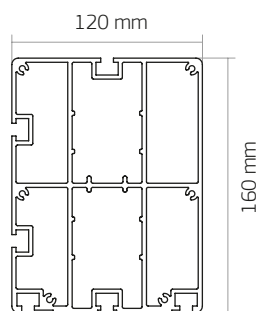
Parapet column without rainwater extraction

# Persa

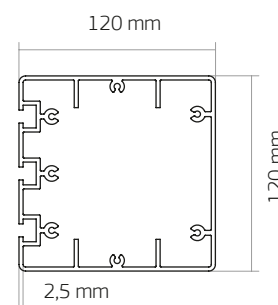
Details of the connection of a pergola Persa 160X85 with a 160x120 parapet



Aluminium 160x120 parapet with 120x120 columns.  
Maximum column-to-column distance: 5 metres.



Parapet 160x120

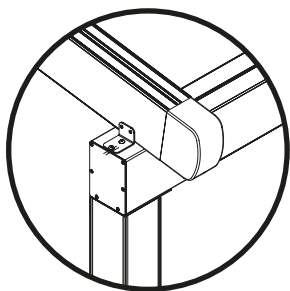


Column 120x120

## Details of the connection of a pergola Persa 160X85 with a 160x120 parapet

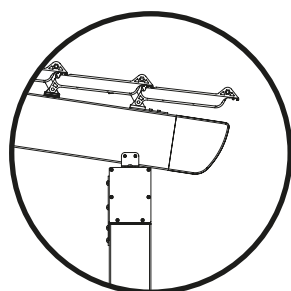
### Details of the rafter-parapet connection

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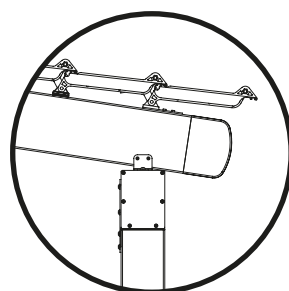
A1

External detail of the Rafter-to-Parapet connection. The total parapet length is always 2 cm longer than the total pergola length.



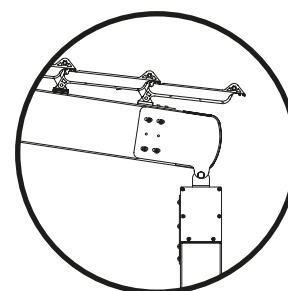
A2

Persa 160X85 pergola with a protruding rafter and 16 cm Aluminium Cover (Corbel) on a 160x120 parapet.



A3

Persa 160X85 pergola with a protruding rafter and 12 cm Aluminium Cover (Corbel) on a 160x120 parapet.

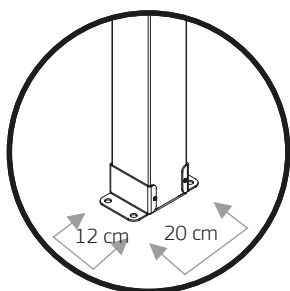


A4

Persa 160X85 pergola with a face rafter on the 160x120 parapet, 12 cm Aluminium Cover (Corbel).

### Details of the parapet column and rainwater extraction.

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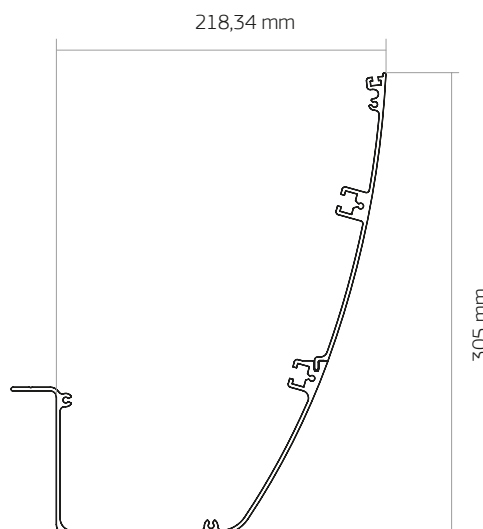
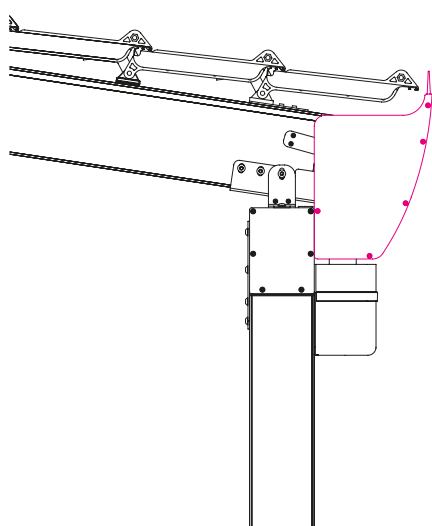
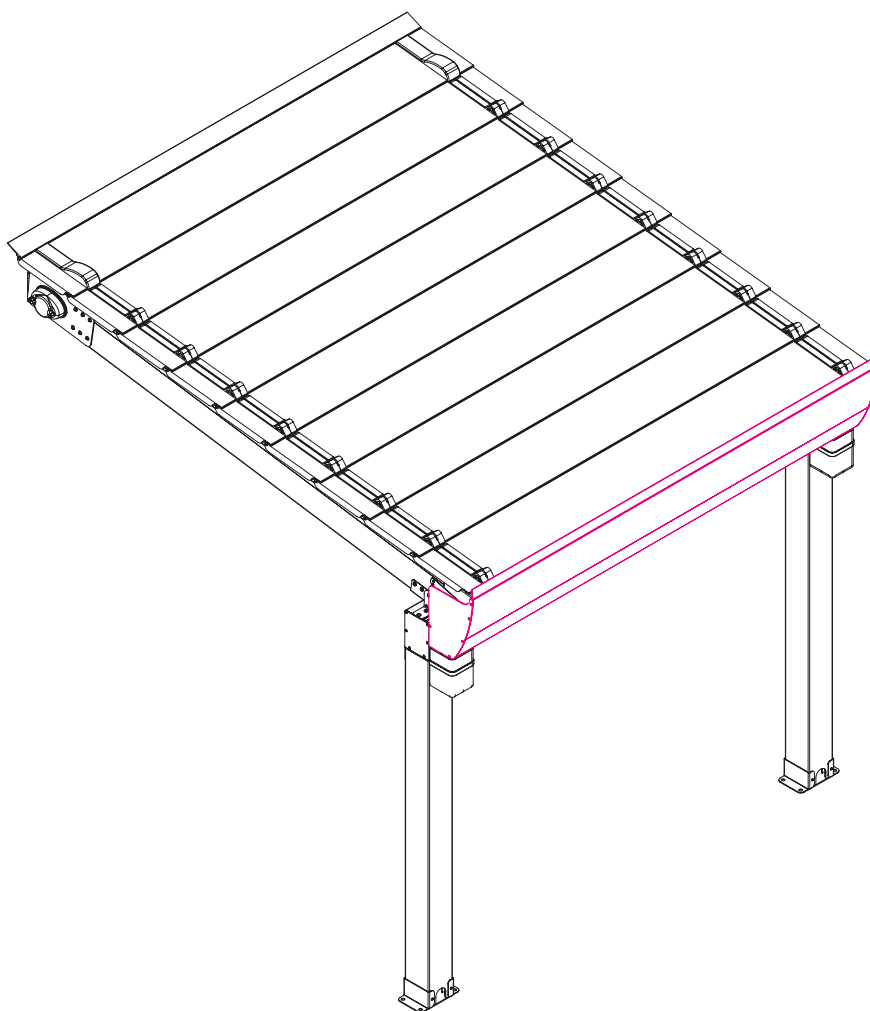


B1

Parapet column without rainwater extraction

# Persa

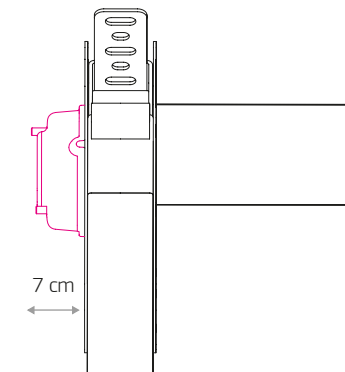
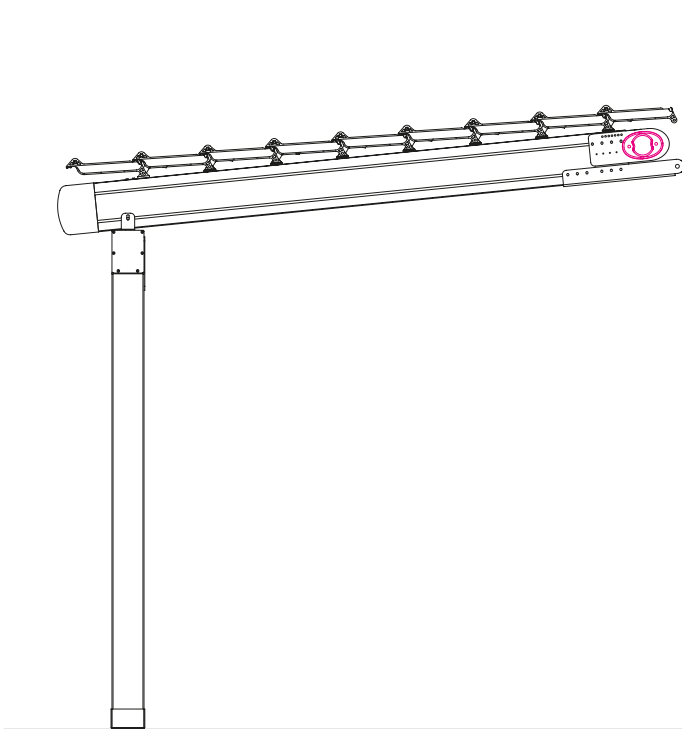
Water Gutter for Persa Pergola



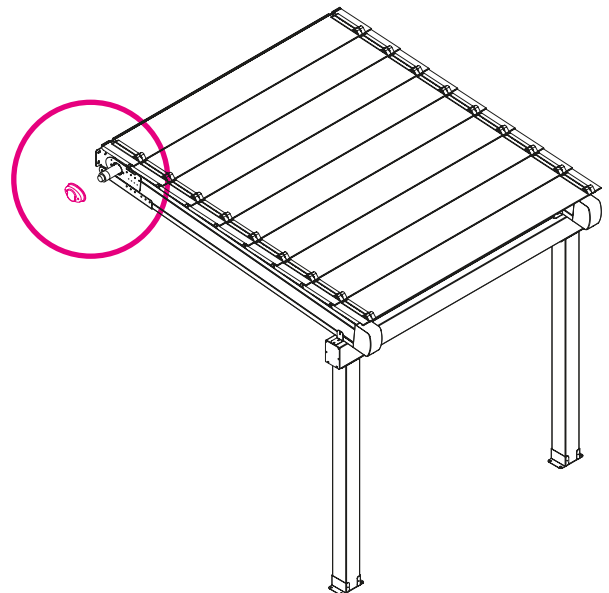
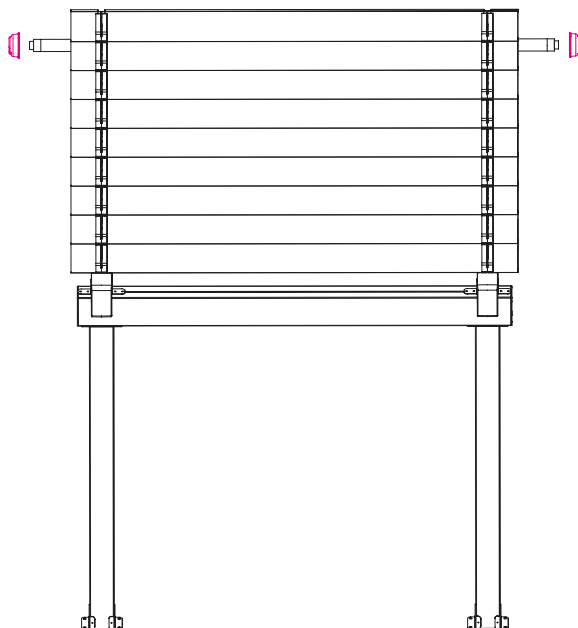
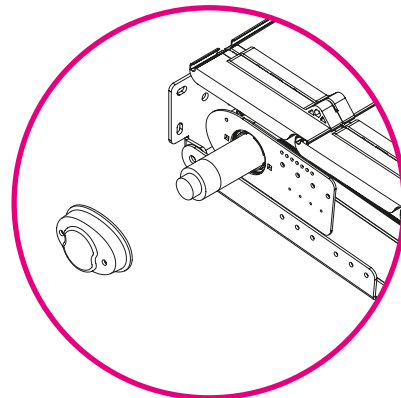
Details of Gutter

## Motion transmission motor

Motion is transmitted in the Persa pergola by a tubular motor. For pergolas with large areas and special requirements, two tubular motors can be installed.

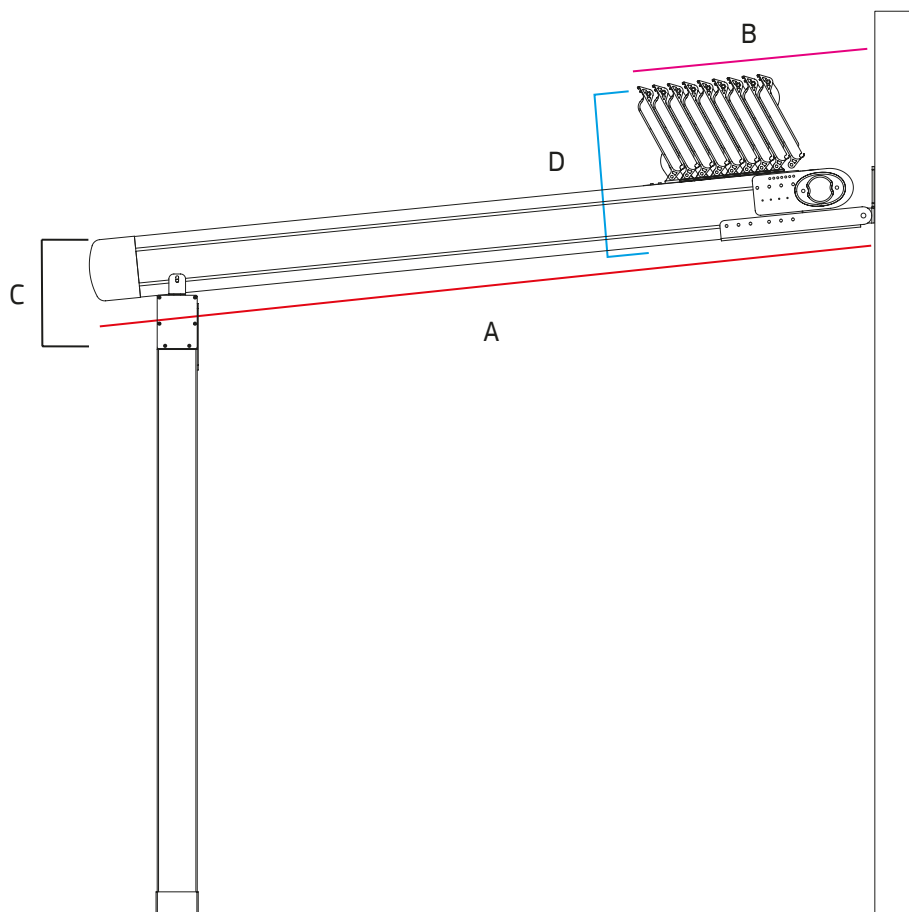


Motor cover detail



# Persa

General information on pergola installation

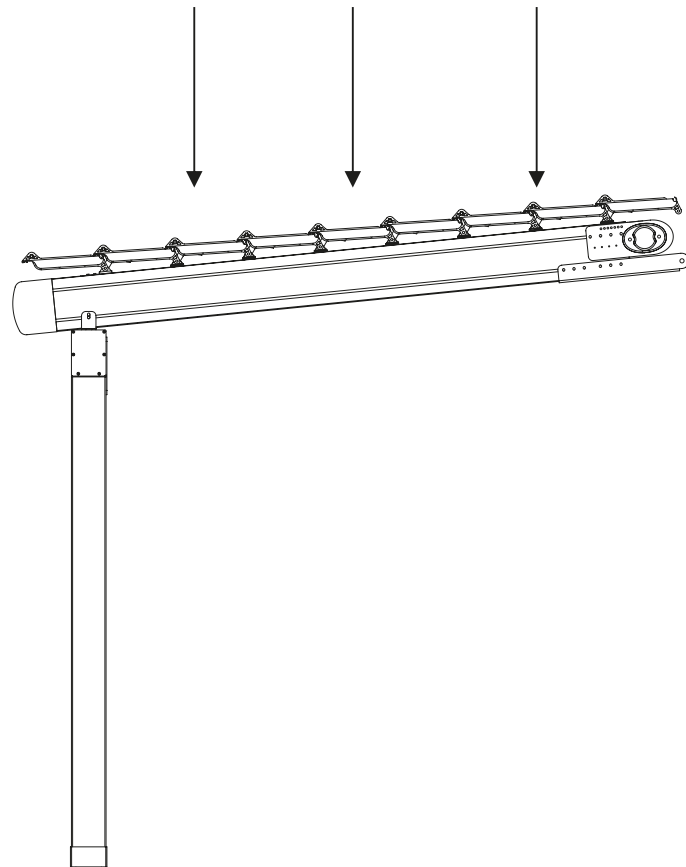


A	B	C	D
Projection	Distance of Retracted Counterweights	Gradient	Depth
250	60	32,5	48
275	64	36	48
300	68	39,5	48
325	72	43	48
350	76	46,5	48
375	80	50	48
400	84	53,5	48
425	88	57	48
450	92	60,5	48
475	96	64	48
500	100	67,5	48
525	104	71	48
550	108	74,5	48
575	112	78	48
600	116	81,5	48
625	120	84	48
650	124	87,5	48

Measurements are in centimeters



## Load Resistance



PERSA 180X100

Projection (cm)	Load (Kg/m <sup>2</sup> )
250	400
300	400
350	400
400	300
450	250
500	200
550	150
600	125
650	100

PERSA 160X85

Projection (cm)	Load (Kg/m <sup>2</sup> )
250	350
300	300
350	250
400	200
450	130
500	100
550	75
600	58
650	45



## Δήλωση Επίδοσης | Declaration of Performance

PEP/CPR/13561/13

1	Προϊόν / Product type	Ηλεκτροκίνητη Πτυσσόμενη Πέργκολα / Power operated retractable conservatory shutter	
2	Κωδικός αναγνώρισης / Product type reference	Πέρσα PEP01 Persa PEP01	
3	Προοριζόμενη χρήση / Intended use	Σύστημα σκίασης - στέγασης εξωτερικής χρήσης / Shading - roofing system for external use	
4	Κατασκευαστής, διεύθυνση επικοινωνίας / Manufacturer, address	METAFORM A.E 12ο χλμ. Θεσσαλονίκης - Λαγκαδά, 572 00, Θεσσαλονίκη / METAFORM S.A. 12th Km Thessaloniki - Lagadas, 572 00, Thessaloniki	
5	Εξουσιοδοτημένος αντιπρόσωπος, διεύθυνση επικοινωνίας / Authorised representative, address	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A	
6	Εναρμονισμένο Πρότυπο / Harmonized standard Ref	13659:2004+A1:2008 "Εξώφυλλα - Απαιτήσεις επιδόσεων και ασφάλειας" / 13659:2004+A1:2008 "Shutters - Performance requirements including safety"	
7	Σύστημα αξιολόγησης της απόδοσης / System of assessment and verification of constancy of performance	4	
8	Ουσιώδη χαρακτηριστικά / Essential Characteristic	Δηλωθείσα απόδοση / Declared Performance	
	Αντοχή σε ανεμοπίεση / Wind resistance	Μοντέλο / Model	Κλάση / Class
9	Κοινοποιημένος Φορέας / Notified Body	Εξέδωσε το Πιστοποιητικό Συμμόρφωσης / Issued the Certificate of Conformity	
	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A.	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A.	
10	Η απόδοση του προϊόντος που ταυτοποιείται στα σημεία 1 και 2 ανταποκρίνεται προς την απόδοση που δηλώθηκε στο σημείο 8. Η παρούσα δήλωση απόδοσης εκδίδεται με αποκλειστική ευθύνη του κατασκευαστή που ταυτοποιείται στο σημείο 4.  The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.  Υπογραφή για λογαριασμό και εξ ονόματος του κατασκευαστή από / Signed for and on behalf of the manufacturer by:  Φραγκόπουλος Στυλιανός - Υπεύθυνος Ποιότητας Frangopoulos Stelios – Quality Manager		
Τόπος και ημερομηνία έκδοσης / Place and date of issue		Υπογραφή / Signature	
Θεσσαλονίκη / Thessaloniki ____/____/20__			



## Δήλωση Επίδοσης | Declaration of Performance

PEP/CPR/13561/13

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2	Κωδικός αναγνώρισης / Product type reference	Πέρσα PEP02 Persa PEP02	
3	Προοριζόμενη χρήση / Intended use	Σύστημα σκίασης - στέγασης εξωτερικής χρήσης / Shading - roofing system for external use	
4	Κατασκευαστής, διεύθυνση επικοινωνίας / Manufacturer, address	METAFORM A.E 12ο χλμ. Θεσσαλονίκης - Λαγκαδά, 572 00, Θεσσαλονίκη / METAFORM S.A. 12th Km Thessaloniki - Lagadas, 572 00, Thessaloniki	
5	Εξουσιοδοτημένος αντιπρόσωπος, διεύθυνση επικοινωνίας / Authorised representative, address	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A	
6	Εναρμονισμένο Πρότυπο / Harmonized standard Ref	13659:2004+A1:2008 "Εξώφυλλα - Απαιτήσεις επιδόσεων και ασφάλειας" / 13659:2004+A1:2008 "Shutters - Performance requirements including safety"	
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	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A.	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A.	
10	Η απόδοση του προϊόντος που ταυτοποιείται στα σημεία 1 και 2 ανταποκρίνεται προς την απόδοση που δηλώθηκε στο σημείο 8. Η παρούσα δήλωση απόδοσης εκδίδεται με αποκλειστική ευθύνη του κατασκευαστή που ταυτοποιείται στο σημείο 4.  The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.  Υπογραφή για λογαριασμό και εξ ονόματος του κατασκευαστή από / Signed for and on behalf of the manufacturer by:  Φραγκόπουλος Στυλιανός - Υπεύθυνος Ποιότητας Frangopoulos Stelios - Quality Manager		
	Τόπος και ημερομηνία έκδοσης / Place and date of issue	Υπογραφή / Signature	
	Θεσσαλονίκη / Thessaloniki ...../...../2014		

**METAFORM**  
SHADING SYSTEMS

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