



EXTERNAL BLINDS

C-60

05/2016

CLIMAX 
Sunscreens by Servis Climax a.s.

1. Common section - external blinds

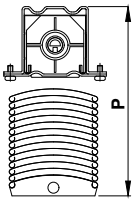
1.1 Limit dimensions for standard versions

Limit dimensions															
BLIND TYPE	OPERATION	Width [cm]					Height [cm]				Max. area 1 blind	Max. width when connected [m]		Max. area when conne- cted	
		Min.		Min. guaran- teed	Max.	Max. guaran- teed	Min.	Min. guaran- teed	Max.	Max. guaran- teed		Operati- on on the side	Operati- on in the middle		
		guide rail	wire												
C-80, C-80 CC	crank	44		50	590	500	35	50	590	500	8 m²	6	12	8 m²	
	motor	SOMFY	46								47			20 m²	36 m²
		ELERO	47								48				
		GEIGER	48								49				
C-80 VENTAL	crank	49		50	590	500	35	50	590	500	8 m²	6	12	8 m²	
	motor	SOMFY	45								46			20 m²	36 m²
		ELERO	46								47				
		GEIGER	47								48				
C-60	crank	44		50	590	500	35	50	590	500	8 m²	6	12	8 m²	
	motor	SOMFY	46								47			20 m²	36 m²
		ELERO	47								48				
		GEIGER	48								49				
Z-90 NOVAL	crank	49		50	590	500	35	50	590	500	8 m²	6	12	8 m²	
	motor	SOMFY	45								46			20 m²	36 m²
		ELERO	46								47				
		GEIGER	47								48				
Z-70	crank	44		50	590	500	35	50	590	500	8 m²	6	12	8 m²	
	motor	SOMFY	46								47			20 m²	36 m²
		ELERO	47								48				
		GEIGER	48								49				
F-80	crank	44		50	450	450	35	50	590	500	8 m²	6	12	8 m²	
	motor	SOMFY	46								47			20 m²	36 m²
		ELERO	47								48				
		GEIGER	48								49				
EXT-50 H	crank	45		50	400	300	35	50	500	350	8 m²	6	12	8 m²	
	motor										SOMFY			9 m²	27 m²
											ELERO				
											GEIGER				
EXT-50	cord	42		50	350	250	35	50	320	250	5 m²	4	-	5 m²	
	chain														
	crank				400						4 m²			4 m²	
	motor														
Self-supporting system 250	manual	50		50	280	250	35	50	520	400	8 m²	5	7.5	8 m²	
	motor										10 m²			30 m²	
Self-supporting system 400	crank	60		60	450	400	35	50	590	500	6 m²	6	12	6 m²	
	motor										12 m²			30 m²	
MISTRAL	crank	70		70	280	250	35	50	520	400	8 m²	5	7.5	8 m²	
	motor										10 m²			30 m²	

Notice:

- When blinds are connected, a deviation of max. 20° concerning the tilting of slats towards each other occurs.
- When the connection is straight, it is possible to connect max. 3 external blinds.
- When the connection is at 90° or 45°, it is possible to connect max. 2 external blinds.

1.2 Stack of slats height

P - Stack of slats height (cm)																			
		C-80		C-80 CC		C-80 VENTAL		C-60		Z-90 NOVAL		Z-70		F-80		EXT-50 H		EXT-50	
		crank	motor	crank	motor	crank	motor	crank	motor	crank	motor	crank	motor	crank	motor	crank	motor	crank	motor
BLIND HEIGHT (cm)	50 - 75 cm	14	16	13	15	12.5	14.5	18	20	12	14	15	17	11.5	13.5	11.5	13.5	9.5	
	75.1 - 100 cm	16	18	14	16	14	16	20	22	14	16	16	18	12.5	14.5				
	100.1 - 125 cm	18	20	16	18	15.5	17.5	22	24	15	17	17	19	13	15				
	125.1 - 150 cm	20	22	17	19	17	19	24	26	16	18	19	21	14	16	13	15	11	
	150.1 - 175 cm	22	24	19	21	18.5	20.5	26	28	18	20	21	23	14.5	16.5				
	175.1 - 200 cm	24	26	21	23	20	22	28	30	19	21	23	25	15.5	17.5	14	16	12	
	200.1 - 225 cm	26	28	22	24	21.5	23.5	30	32	20	22	25	27	16	18				
	225.1 - 250 cm	28	30	24	26	22.5	24.5	32	34	22	24	27	29	17	19	15.5	17.5	13.5	
	250.1 - 275 cm	30	32	25	27	23.5	25.5	34	36	23	25	28	30	17.5	19.5				
	275.1 - 300 cm	32	34	27	29	25	27	36	38	24	26	29	31	18.5	20.5	17	19	15	
	300.1 - 325 cm	34	36	28	30	26.5	28.5	38	40	25	27	31	33	19	21				
	325.1 - 350 cm	36	38	30	32	27.5	29.5	40	42	27	28	33	35	20	22	18.5	20.5	16	
	350.1 - 375 cm	38	40	31	33	29	31	42	44	28	30	35	37	20.5	22.5				
	375.1 - 400 cm	40	42	33	35	30	32	44	46	29	31	37	39	21	23	20	22	-	
	400.1 - 425 cm	42	44	34	36	31.5	33.5	46	48	30	32	38	40	22	24				
	425.1 - 450 cm	44	46	36	38	33	35	48	50	31	33	40	42	23	25	-			
450.1 - 475 cm	46	48	37	39	34.5	36.5	50	52	33	35	41	43	23.5	25.5					
475.1 - 500 cm	48	50	39	41	36	38	52	54	34	36	43	45	24.5	26.5					

Notice:

- when ordering the height of the cover plate with for blinds with a stack of slats height up to 17 cm, it is recommended to choose a cover plate of minimum height 18 cm; for Z-90 NOVAL with the stack of slats height up to 19 cm, it is recommended to choose a cover plate of minimum height 20 cm, or to choose a minimum gap between the first slat and the head rail (for all types of blinds)

1.3 Various versions

Operation						Guiding			Various versions				Sloped versions
Blind type	Slat width	Crank	Motor	Cord	Chain	Guide rail	Wire	Wire extra	Tilting to both sides	Open version	Self-supporting system	MISTRAL	
C-80	80 mm	■	●	NO	NO	■	●	●	YES	●	●	●	●
C-80 CC	80 mm	■	●	NO	NO	■	●	●	NO	●	●	●	●
C-80 VENTAL	80 mm	■	●	NO	NO	■	●	●	NO	●	●	●	●
C-60	60 mm	■	●	NO	NO	■	●	●	YES	NO	●	●	●
Z-90 NOVAL	90 mm	■	●	NO	NO	■	●	●	NO	●	●	●	●
Z-70	70 mm	■	●	NO	NO	■	●	●	NO	●	●	NO	●
F-80	80 mm	■	●	NO	NO	■	●	●	YES, only in wire	●	●	NO	NO
EXT-50 H	50 mm	●	●	NO	NO	NO	■	●	■	NO	NO	NO	NO
EXT-50	50 mm	●	●	■	●	NO	■	●	■	NO	NO	NO	NO

Legend: ■ - standard ● - for extra charge / deduction

Notice:

- Tilting to both sides cannot be combined with an open version.

1.4 Standard colours of slats

1.4.1 Standard colours of slats C, Z, F

Slat number	Paint	Description	RAL	VSR	C-80, C-80 CC	C-80 VENTAL	C-60	Z-90 NOVAL	Z-70	F-80
010	H	white	9003	010	■	-	-	■	■	-
9010	H	white	9010	-	■	■	■	■	■	■
140 S	S	silver (structured)	9006	140	■	-	-	■	■	-
140 H	H	silver	9006	140	■	■	■	■	■	■
9007	H	grey (silver)	9007	907	■	■	■	■	■	■
DB 703	H	dark grey	-	-	■	■	■	■	■	■
130	H	grey	7038	130	■	-	-	■	-	-
240	H	light beige	-	240	■	-	-	■	-	-
220	H	dark green	6005	220	■	-	-	■	-	-
780 H	H	bronze light	-	780	■	-	-	■	-	-
780 D	H	bronze dark	-	780	-	-	-	■	-	-
071	H	brown	8028	71	■	-	-	■	-	-
7022	H	grey	7022	-	■	-	-	■	■	■
7016	H	anthracite	7016	-	■	■	■	■	■	■
905	H	black	9005	-	■	-	-	■	-	-
110	H	beige	-	110	■	-	-	■	-	-
440	H	azure blue	5009	440	■	-	-	■	-	-
330	H	purple red	3011	330	■	-	-	■	-	-
120	H	terracotta	3013	120	■	-	-	■	-	-
720	H	chrome yellow	1007	720	■	-	-	■	-	-
904	H	light grey	7035	904	■	-	-	■	-	-
909	H	green beige	1000	909	■	-	-	■	-	-
908	H	turquoise blue	5018	908	■	-	-	■	-	-
903	H	light grey blue	5014	903	■	-	-	■	-	-
906	H	bright blue	5002	906	■	-	-	■	-	-

1.4.2 Standard colours of slats EXT-50 H, EXT-50

Slat number	Paint	Description	RAL	VSR
101	H	white	9016	-
104	H	light grey	7035	904
102	H	silver	9006	140
110	H	beige	-	-
111	H	light brown	-	-
109	H	ivory	1013	-
107	H	anthracite	7016	-
106	H	dark grey	(DB 703)	-
103	H	grey (silver)	9007	907
108	H	bronze	-	-
113	H	light green	-	-
114	H	dark green	6005	220

Note:

- Each colour VSR is matched to the closest colour shade of the RAL collection.
- Slat colours - gloss 60%, for colour of slat no. 905 is gloss 30%.

Legend: H - smooth paint S - structured paint ■ - standard

1.5 Colour tuning of components

1.5.1 Colour tuning of components for C, Z, F

Slat number	Tape and ladder	PVC pin (C, F) *
010	grey	grey
9010	grey	grey
140 S	grey	grey
140 H	grey	grey
9007	grey	grey
DB 703	grey	black
130	grey	grey
240	grey	grey
220	grey	grey
780 H	grey	grey
780 D	grey	grey
071	grey	grey
7022	black	black
7016	black	black
905	black	black
110	grey	grey
440	grey	grey
330	grey	grey
120	grey	grey
720	grey	grey
904	grey	grey
909	grey	grey
908	grey	grey
903	grey	grey
906	grey	grey

* - except C-80 VENTAL type (metal pins)

Note:

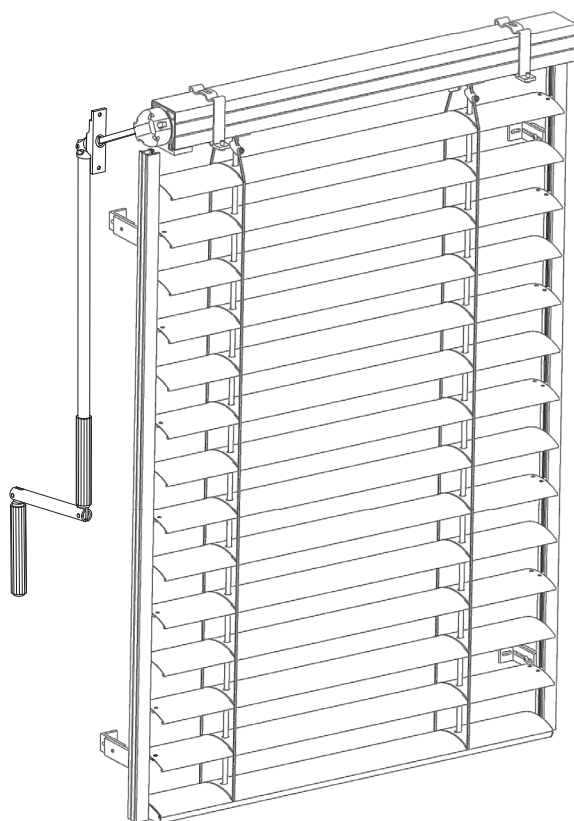
- If you order a non-standard colour version, all components will be tuned in the grey colour.

1.5.2 Colour tuning of components for EXT-50 H, EXT-50

Slat number	Tape and ladder
101	white
104	grey
102	grey
110	grey
111	white
109	white
107	black
106	grey
103	grey
108	grey
113	grey
114	grey

4. External blinds C-60

4.1 Product specification



Standard version

- ✓ operation by crank Ø 15 mm - silver anodized
- ✓ gear-box, bushing POK 45°, □ 6 x 6 mm, length 31 cm
- ✓ head rail 56 x 58 mm - zinc-coated
- ✓ mounting holders MD 1 - zinc-coated
- ✓ guide rails VL (1, 2, 3) - silver anodized
- ✓ brackets K 1 - silver anodized
- ✓ guiding pin - plastic
- ✓ tape 8 mm
- ✓ standard slat colours according to the colour collection
- ✓ slat tilting to one side
- ✓ bottom rail - silver anodized
- ✓ fasteners

Other possible versions

- ✓ slat tilting to both sides
- ✓ MISTRAL version
- ✓ self-supporting system

Extra charges - see pp. 44 - 62.

Slat colours - C-60

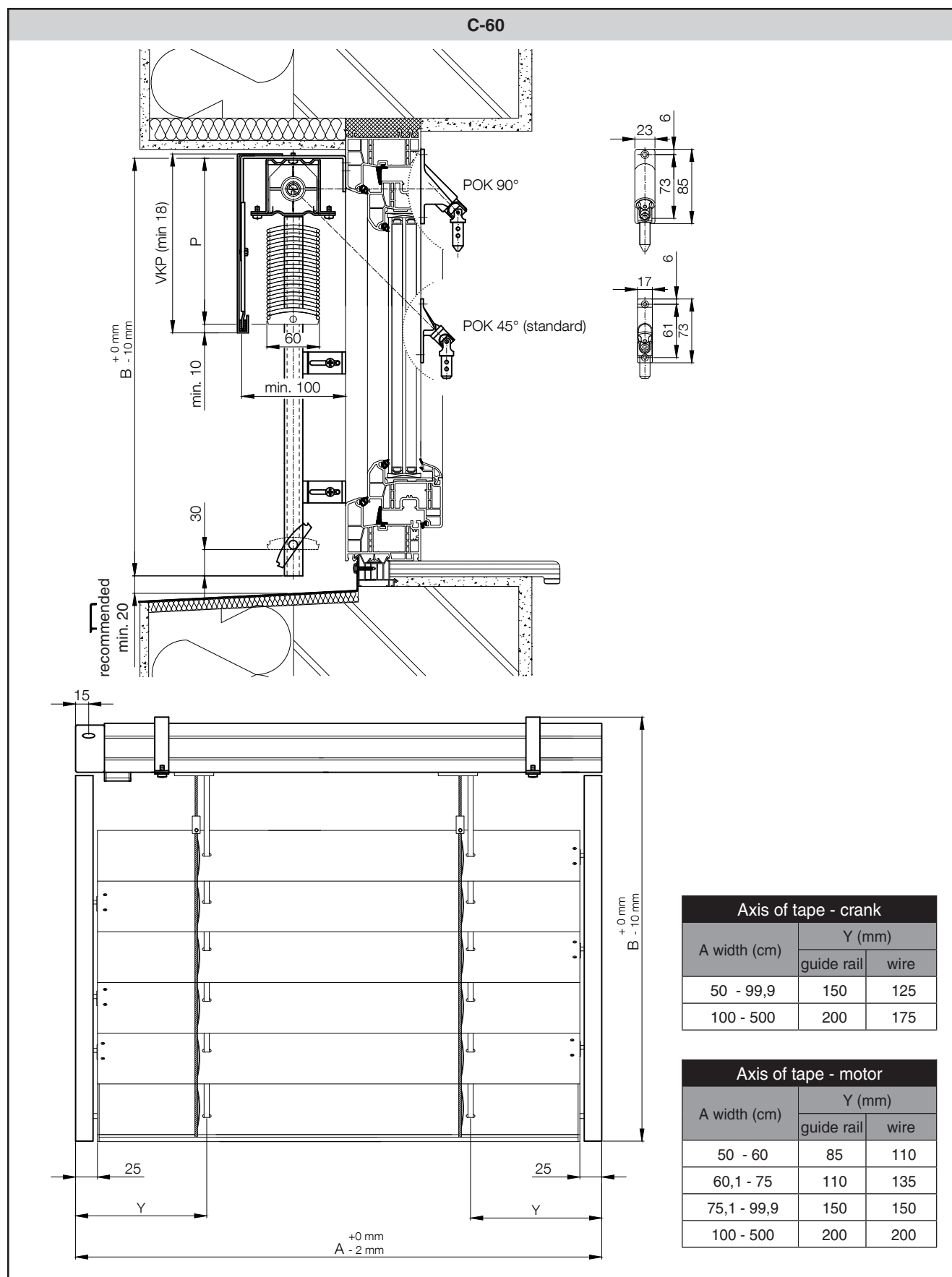
Number	Description	Delivery date	Extra charge
9010 140 H 9007 DB 703 7016	white silver grey (silver) dark grey anthracite	1 week	no

Limit dimensions

Limit dimensions

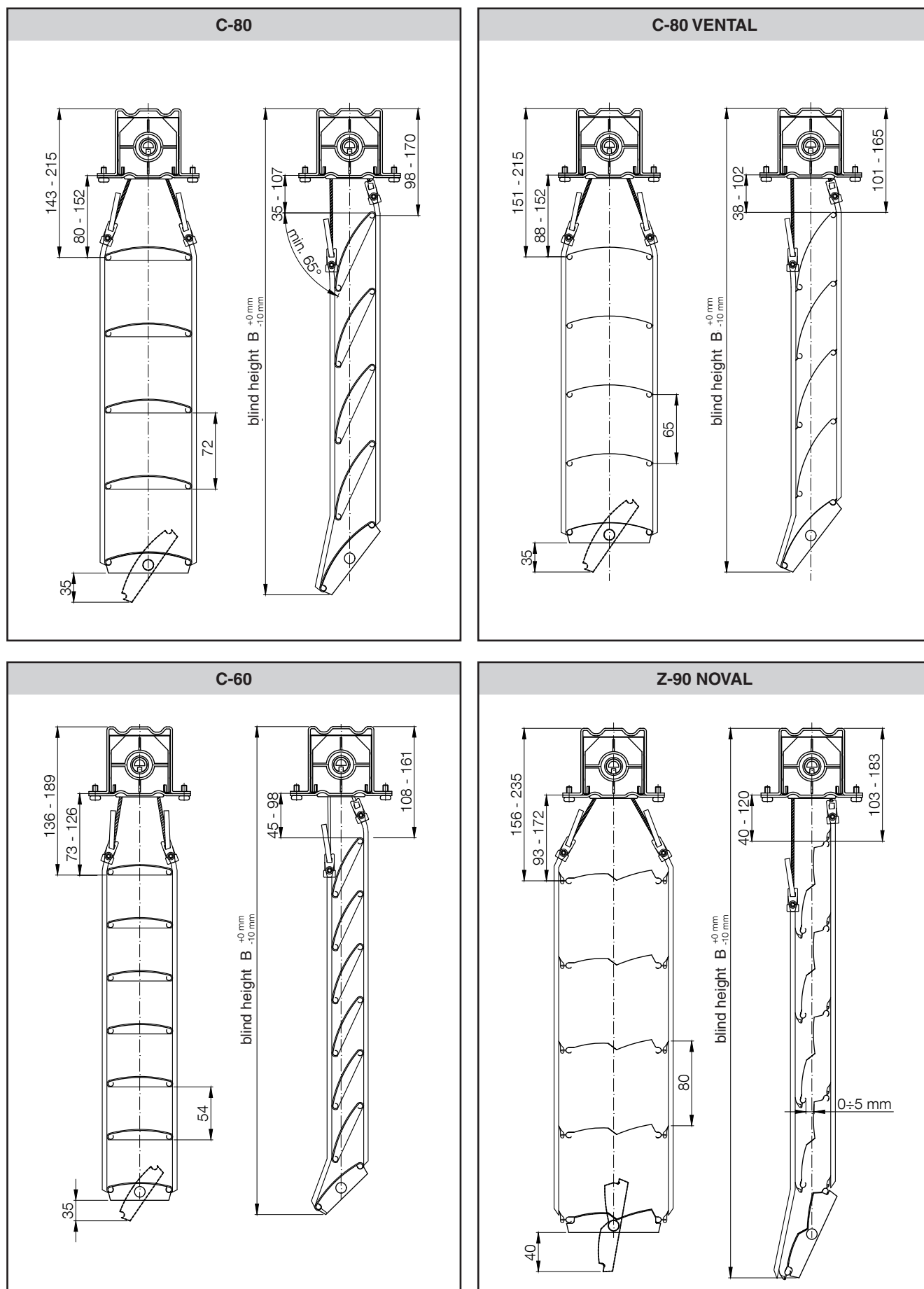
BLIND TYPE	OPERATION		Width [cm]				Height [cm]				Max. area of 1 blind	Max. width when connected [m]		Max. area when connected	
			Min.		Min. guarant.	Max.	Max. guarant.	Min.	Min. guarant.	Max.		Max. guarant.	Operation on the side		Operation in the middle
			guide rail	wire											
C-60	crank		44		50	590	500	35	50	590	500	8 m²	6	12	8 m²
	motor	SOMFY	46	47								20 m²			36 m²
		ELERO	47	48											
		GEIGER	48	49											

4.2 Version

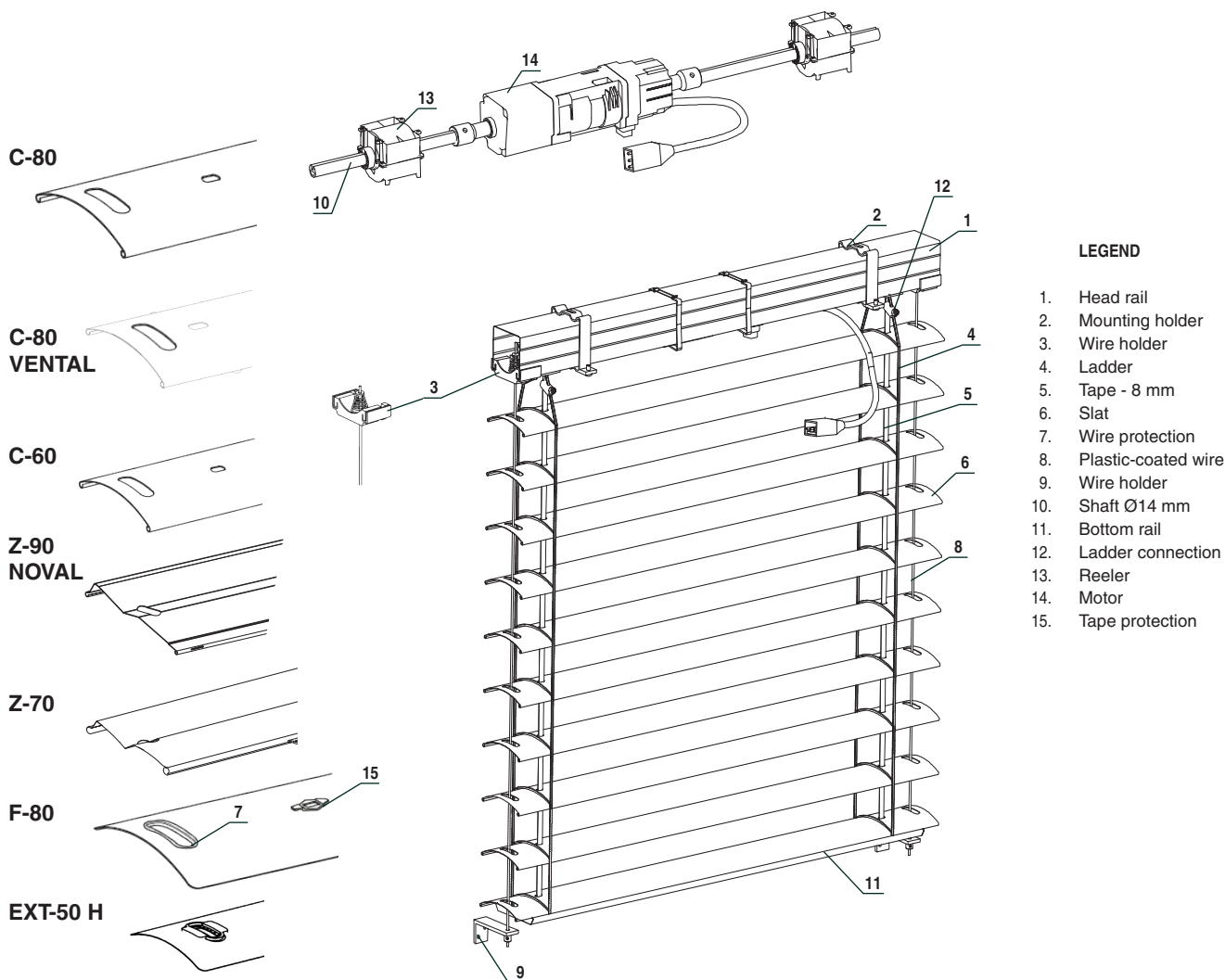


Legend: A - blind width B - blind height P - stack of slats height Y - axis of tape VKP - cover plate height

10.7 Manufacturing dimensions of blinds

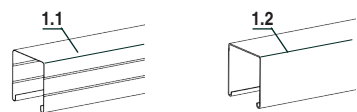


10.15.2 Technical data sheet of external blinds - motor, guiding in wire

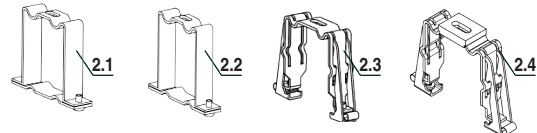


Optional components

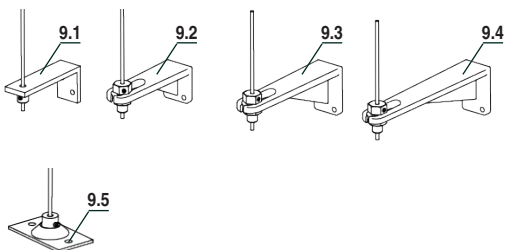
Head rail



Mounting holder



Wire holder



No.	Item	Note	Material
1	Head rail		
1.1	Head rail - zinc-coated 56 x 58 mm		zinc-coated steel
1.2	Aluminium head rail 57 x 59 mm		aluminium alloy
2	Mounting holder		
2.1	Mounting holder MD 1		zinc-coated steel
2.2	Mounting holder MD 1a		stainless steel
2.3	Mounting holder MD 1b	spring	zinc-coated steel
2.4	Mounting holder MD 1bg	spring	zinc-coated steel
3	Wire holder		plastic - PA6
4	Ladder		polyester - PES
5	Tape - 8 mm		polyester - PES
6	Slat		aluminium alloy
7	Wire protection	for F-80	plastic - PC
8	Plastic-coated wire		stainless steel / plastic
9	Wire holder		
9.1	Wire holder DL		aluminium alloy
9.2	Wire holder DL 1		aluminium alloy
9.3	Wire holder DL 2		aluminium alloy
9.4	Wire holder DL 3		aluminium alloy
9.5	Wire holder DL 4		aluminium alloy
10	Shaft Ø14 mm		aluminium alloy
11	Bottom rail		aluminium alloy
12	Ladder connection		plastic - POM
13	Reeler		plastic - POM
14	Motor		
15	Tape protection		plastic - PC

Beaufort scale				
Wind resistance class	Beaufort class	Wind speed [km/h]	Wind type	Wind characteristics
0	0	0 up to 1	calm	Smoke rises vertically.
	1	2 up to 5	light air	Smoke drift indicates wind directions, vanes do not move.
	2	6 up to 11	light	Wind felt on face; leaves rustle; vanes begin to move.
	3	12 up to 19	gentle breeze	Leaves, small twigs in constant motion; light flags extended.
1	4	20 up to 28	moderate	Dust, leaves and loose paper raised up; small branches move.
2	5	29 up to 38	fresh breeze	Small trees begin to sway.
3	6	39 up to 49	strong breeze	Large branches on trees in motion; whistling heard in wires.
4	7	50 up to 61	moderate gale	Whole trees in motion; resistance felt in walking against the wind.
5	8	62 up to 74	fresh gale	Twigs and small branches broken off trees; walking in straight position against the wind is not possible.
6	9	75 up to 88	strong gale	Slight structural damage occurs; slate, chimneys blown from roofs.
-	10	89 up to 102	whole gale	Seldom experienced on land; trees broken, structural damage occurs.
	11	103 up to 117	storm	Widespread damage on land.
	12	over 118	hurricane	Severe widespread damage to vegetation and structures. Debris and unsecured objects are hurled about.

Declared values of wind resistance classes based on tests according to the standard EN 13659+A1

Wind resistance for external blinds guided in rails													
Wind resistance classes valid for loading both with pressure and intake of blinds	Blind height	A ≤ 2 000		2 000 < A ≤ 3 000		3 000 < A ≤ 4 000		4 000 < A ≤ 4 500		4 500 < A ≤ 4 800		4 800 < A ≤ 5 000	
		EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort
C-80, C-80 CC	up to 400 cm	4	7	3	6	2	5	1	4	0	3	0	2
C-80 VENTAL		5	8	4	7	3	6	2	5	1	4	0	3
C-60		5	8	4	7	3	6	2	5	1	4	0	3
Z-90 NOVAL		4	7	3	6	2	5	1	4	0	3	0	2
Z-70		5	8	4	7	3	6	2	5	1	4	0	3
F-80		3	6	2	5	1	4	0	3	0	2	0	1
EXT-50, EXT-50 H		2	5	1	4	0	3	0	2	0	1	0	0

Wind resistance for external blinds guided in wire													
Wind resistance classes valid for loading both with pressure and intake of blinds	Blind height	A ≤ 2 000		2 000 < A ≤ 3 000		3 000 < A ≤ 4 000		4 000 < A ≤ 4 500		4 500 < A ≤ 4 800		4 800 < A ≤ 5 000	
		EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort	EN 13 659 + A1	Beaufort
C-80, C-80 CC	up to 250 cm	2	5	1	4	0	3	0	2	0	1	0	0
	up to 400 cm	1	4	0	3	0	2	0	1	0	0	0	0
C-80 VENTAL	up to 250 cm	2	5	1	4	0	3	0	2	0	1	0	0
	up to 400 cm	1	4	0	3	0	2	0	1	0	0	0	0
C-60	up to 250 cm	2	5	1	4	0	3	0	2	0	1	0	0
	up to 400 cm	1	4	0	3	0	2	0	1	0	0	0	0
Z-90 NOVAL	up to 250 cm	2	5	1	4	0	3	0	2	0	1	0	0
	up to 400 cm	1	4	0	3	0	2	0	1	0	0	0	0
Z-70	up to 250 cm	2	5	1	4	0	3	0	2	0	1	0	0
	up to 400 cm	1	4	0	3	0	2	0	1	0	0	0	0
F-80	up to 250 cm	2	5	1	4	0	3	0	2	0	1	0	0
	up to 400 cm	1	4	0	3	0	2	0	1	0	0	0	0
EXT-50, EXT-50 H	up to 250 cm	1	4	0	3	0	2	0	1	0	0	0	0
	up to 400 cm	0	3	0	2	0	1	0	0	0	0	0	0

Legend: A - blind width