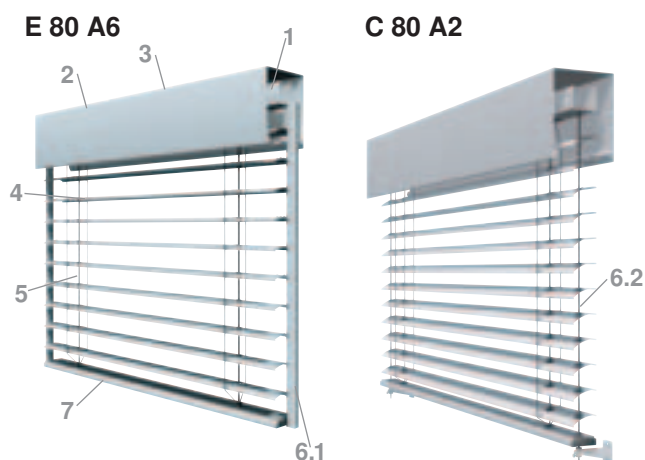


External venetian blinds with rolled edge slat profile E 60/80 A2, E 60/80 A6, C 60/80 A2, C 60/80 A6



Description



Application

For mounting on mullion/transom facades or conservatories, in the soffit or in ventilated facades, in double skin facades, in front of the facade or indoors.

Operation

Motor

The slats are raised and lowered as well as tilted by actuating an operating switch.

Voltage: 230 V AC, other voltages possible

Frequency: 50 Hz, other frequencies possible

Degree of protection: IP 54

Plug connection: Hirschmann coupling

When the upper or lower limit position is reached, the drive is switched off by built-in, adjustable limit switches.

Crank

The slats are raised and lowered as well as tilted with the crank. Crank rod with collapsible crank; sealed swivel plate and square with patented thermal separation.

Material: aluminium

Surface: C0 anodised

Crank holder: plastic, grey, white or brown, optional crank holder with magnet

Construction limit values for beaded slats with cable or rail guide system, in mm

Types	Maximum/minimum dimensions								Average weight in kg/m ² ¹⁾
	Single unit				Coupled unit				
	Width ²⁾		Height	Surface area m ²	Width Side drive	Central drive	Area ³⁾ in m ²	Number of blinds	
min. ⁴⁾	max.								
C 60/80 A2	450	5000	4000	12	7000	12000	12,0	5	2,7/2,8
C 60/80 A6			5000						
E 60/80 A2	600	5000	4000	20	7000	12000	26-30	5	3,0/3,1
E 60/80 A6			5000						
E 60/80 A2 AS	600	5000	4000	20	6000	10000	26-30	3	3,0/3,1
E 60/80 A6 AS			5000						

¹⁾ Cable strength: 450 N per tension cable.

²⁾ Width = slat size

³⁾ The indicated maximum surface areas depend on the individual height.

⁴⁾ Narrower slats may not run straight.

Stack heights determined from external venetian blind height in mm

Types	External venetian blind height																				
	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	4400	4600	4800	5000
C 60 A2/A6	165	180	195	210	225	240	255	270	285	300	315	330	350	365	380	395	410	425	440	455	470
E 60 A2/A6	185	200	215	230	245	260	275	290	305	325	340	355	370	385	400	415	430	445	460	475	490
C 80 A2/A6	150	160	175	185	200	210	220	235	245	260	270	285	295	310	320	335	345	360	370	385	395
E 80 A2/A6	170	180	195	205	220	230	245	255	270	280	295	305	320	330	345	355	365	380	390	405	415

Stack heights determined from clear shading height in mm

Types	Clear shading height																		
	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	4400	4600
C 60 A2/A6	180	195	210	230	245	265	280	295	315	330	345	365	380	395	415	430	445	465	480
E 60 A2/A6	200	215	230	250	265	285	300	315	335	350	365	385	400	415	435	450	465	485	500
C 80 A2/A6	160	175	185	200	215	225	240	255	265	280	290	305	320	330	345	360	370	385	400
E 80 A2/A6	180	195	205	220	235	245	260	275	285	300	310	325	340	350	365	380	390	405	420

Slat stack heights are approximate values. For technical reasons, they might be higher or lower.

External venetian blinds with work setting: stack 7 mm higher, top rail bracket art. no. 551012

External venetian blinds with rolled edge slat profile E 60/80 A2, E 60/80 A6, C 60/80 A2, C 60/80 A6



Description

Construction limit values for beaded slats with cable or rail guide system and offset stack¹⁾ in mm

Types	Maximum/minimum dimensions								Average weight in kg/m ² ¹⁾
	Single unit				Coupled unit				
	Width ²⁾		Height	Surface area m ²	Width		Area ³⁾ in m ²	Number of blinds	
	min ⁴⁾	max.			Side drive	Central drive			
C 80 A2 offset	450	5000	4000	12	7000	12000	12,0	5	2,7/2,8
C 80 A6 offset			5000						
E 80 A2 offset	600	5000	4000	20	7000	12000	26-30	5	3,0/3,1
E 80 A6 offset			5000						
E 80 A2 AS offset	600	5000	4000	20	6000	10000	26-30	3	3,0/3,1
E 80 A6 AS offset			5000						

¹⁾ Cable strength: 450 N per tension cable.

²⁾ Width = slat size

³⁾ The indicated maximum surface areas depend on the individual height. Deviating dimensions must be clarified on an individual basis.

⁴⁾ Narrower slats may not run straight.

Disadvantages of the offset stack version:

- The use of a shorter limit switch can have a negative effect on the running of the external venetian blinds due to asymmetrical running.
- The offset stacks place a higher load on the tilting tape.
- With the A6 guide rails, no additional cable guides are possible.

Stack heights determined from external venetian blind height in mm

Types	External venetian blind height																				
	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	4400	4600	4800	5000
C 80 A2/A6 offset	124	134	145	155	165	176	186	197	207	217	228	238	249	259	269	280	290	301	311	321	332
E 80 A2/A6 offset	143	153	163	174	184	195	205	215	226	236	247	257	267	278	288	299	309	319	330	340	351

Stack heights determined from clear shading height in mm

Types	Clear shading height																		
	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	4400	4600
C 80 A2/A6 offset	130	141	152	163	174	185	196	207	218	229	240	251	262	273	283	294	305	316	327
E 80 A2/A6 offset	150	161	172	183	194	205	216	227	238	249	260	271	282	293	303	314	325	336	347

Slat stack heights are approximate values. For technical reasons, they might be higher or lower.

Raising the stack with external venetian blinds with work setting: By 7 mm for Type C systems, by 20 mm for Type E systems (top rail bracket + longer limit switch), top rail bracket art. no. 551012

¹⁾ Surcharge for special design "offset slat stack" on request. The model with guide cable on one side and guide rail on the other side is not available.

External venetian blinds with rolled edge slat profile E 60/80 A2, E 60/80 A6, C 60/80 A2, C 60/80 A6



Description

Top rail (1)

Material: aluminium, extruded
Material thickness: 1.5 mm
Dimensions (W x H): 59 x 51 mm
Profile: C-profile
Surface: plain, optionally powder-coated or anodised
Fixing: with plain aluminium bracket

Tilt shaft (2)

Material: steel, galvanised
Material thickness: 1 mm
Dimensions (W x H): 12 x 12 mm
Profile: square tube
Surface: plain

Bearing (3)

maintenance-free, enclosed
Enclosure: plastic, contains Teflon
Tilting reel: plastic
Tape reel: plastic
Segment tilting to prevent self-acting adjustment of slats.

Slats (4)

Beaded on both sides, curved
Material: aluminium, special alloy
Material thickness: approx. 0.45 mm
Dimensions (B): 60/80 mm
Installation: convex
Surface: corrosion-resistant enamel coating applied using special process
Colour: in accordance with WAREMA colour chart for external venetian blinds

All stamped cut-outs in the slats are fitted with black protective eyelets to ensure perfect guiding of the lifting tapes (reduction of abrasion) and for fixing the webs of the tilting tape. The blind moves down with the slats closed to the outside and moves up with the slats closed to the inside.

Ladder tape/lift tape (5)

Ladder tapes (5.1)

Heavy-duty customised design with double webs
Material: polyester, with Kevlar core
Colour: black, optionally grey or white
Each slat is fixed to the upper web of the tilting tape and is threaded through the double webs.

Lift tapes (5.2)

Material: polyester, special coating
Colour: black, optionally grey or white

Lateral guiding (6)

Rail – A6 (6.1)

With inserted black sealing strips for noise attenuation
Material: aluminium, extruded
Dimensions (W x D): 25 x 18 mm, other rail designs are available – see page 71.
Profile: C-profile
Surface: powder-coated, optionally anodised
Fixing: 2-part guide rail bracket H1, aluminium and plastic
End cap: black plastic, also available in grey or white
Sealing strip: weather-proof, UV-stable, black
Guiding nipple: polyamide, glass-fibre reinforced, impact resistant and joined to slats, slats with nipples on alternate sides.

Tension cable – A2 (6.2)

Wire strand
Material: steel, corrosion-resistant
Sheathing: polyamide
Dimensions (Ø): 3.3 mm
Colour: black or transparent sheathing
Fixing: S01 tension cable bracket, aluminium
The cable guides are fixed with a special spring tension device to compensate for thermal changes in the length of the top rail. Cable guides run through the slats and the bottom rail. They are fixed to the window or the wall using tension cable brackets.

Bottom rail (7)

with end caps
Material: aluminium, extruded
Dimensions (W x H): 60/80 x 20 mm
Surface: powder-coated, optionally anodised
End caps: black plastic, also available in grey or white
Bottom rail for guide rails A6 with movable guiding nipples with slotted end caps to prevent the panel from unhinging.

Colours

Aluminium parts with chrome-free pre-treatment are powder-coated according to latest RAL classic colour chart (with the exception of camouflage and luminous colours) or are available in DB 701, 702, 703 as well as eight textured colours (W4914 – W4921), four colours with simulated anodised finish (WC31 – WC 34) as well as additional colours in accordance with the WAREMA standard colour range (in WAREMA colour specification). Other colour specifications and special colours are available on demand for an additional charge.

External venetian blinds with rolled edge slat profile E 60/80 A2, E 60/80 A6, C 60/80 A2, C 60/80 A6



Description

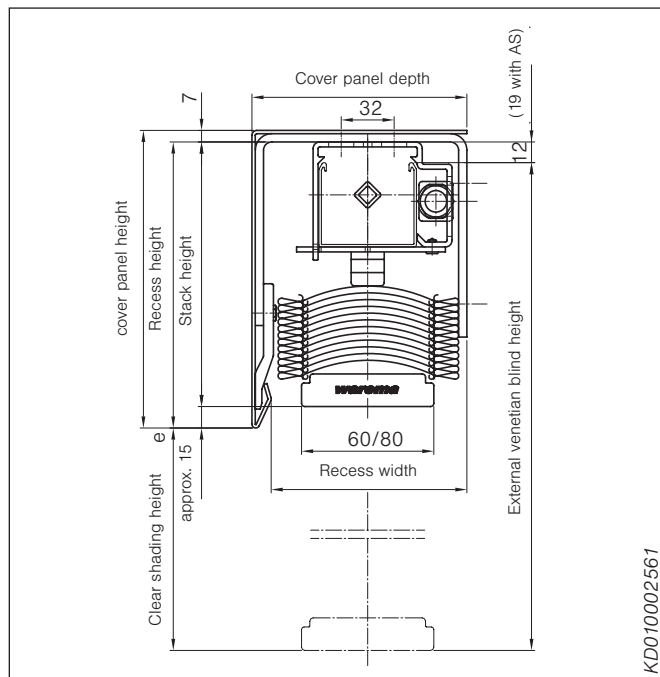
Measuring instructions

Slat stack height from the table

Stack height with work setting (AS) + 7 mm

Recess height = stack height + 15 mm

Cover panel height = stack height + 20 mm



KD010002561

Types	Min. recess width	Min. cover panel depth
60 A2/A6	110	120
80 A2/A6	120	130

Number of guide cables for 60/80 A2

Order width	Cable guides
less than 3 m	2
over 3 m	3
from 4 m to 5 m	4

Please indicate the additional cable guides when ordering (left, seen from the inside).

For larger-width version A6 blinds with a width of > 3000 mm we recommend an additional cable guide towards the centre of the blind.