

4/2020

Window and facade ► Roller shutters

# Roller shutters

Technical data

***Der SonnenLichtManager***







#### **Technical data, valid from 01.04.2020**

The publication of this document supersedes all previous corresponding documents. Our general terms and conditions (GTC) can be viewed and downloaded on our homepage at <http://www.warema.de/agb>.

We will gladly provide our information in printed form. Please note that in the event of updates, the online version is binding. Particular care was taken in producing the text and graphics in this documentation. In spite of this, we cannot accept liability for any existing (printing) errors, mistakes or the consequences thereof. Changes and deviations from the technical specifications and product presentations are possible as a result of the individual structural conditions.

Our products are individual or made-to-measure items and therefore cannot be exchanged or returned.

#### **Safety instructions**

Please see detailed information in the technical data or in the installation and operating instructions.

#### **Legal details**

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Germany

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## New structure and contents

### Roller shutters technical data

- New table of contents (consistent for all product segments)
- New jumping option for TechDataPLUS:
  - For each chapter from the technical data, a TechDataPLUS is available as a separate document (digital only).
  - The TechDataPLUS offers more comprehensive content (more mounting examples and special solutions).
- Directories/chapters are arranged by their field of application (e.g. roller shutters for on-site lintel boxes for different fields of application).
- New chapters such as Interesting facts for planning, Supplementary accessories, Components, Drive variants and Standards
- Landing and overview pages in every chapter
- General coloured display format
- Uniform table presentations
- New drawing formats and drawing appearance
- Control systems can still be found in Technical data/Price list.

#### Changes

- Change of names for box sizes to rounded values in mm (e.g. previously box size 16.5 for front-mounted roller shutters will now be box size 170)
- Roller shutters for on-site lintel boxes are now assigned to the External shaft shutters chapter

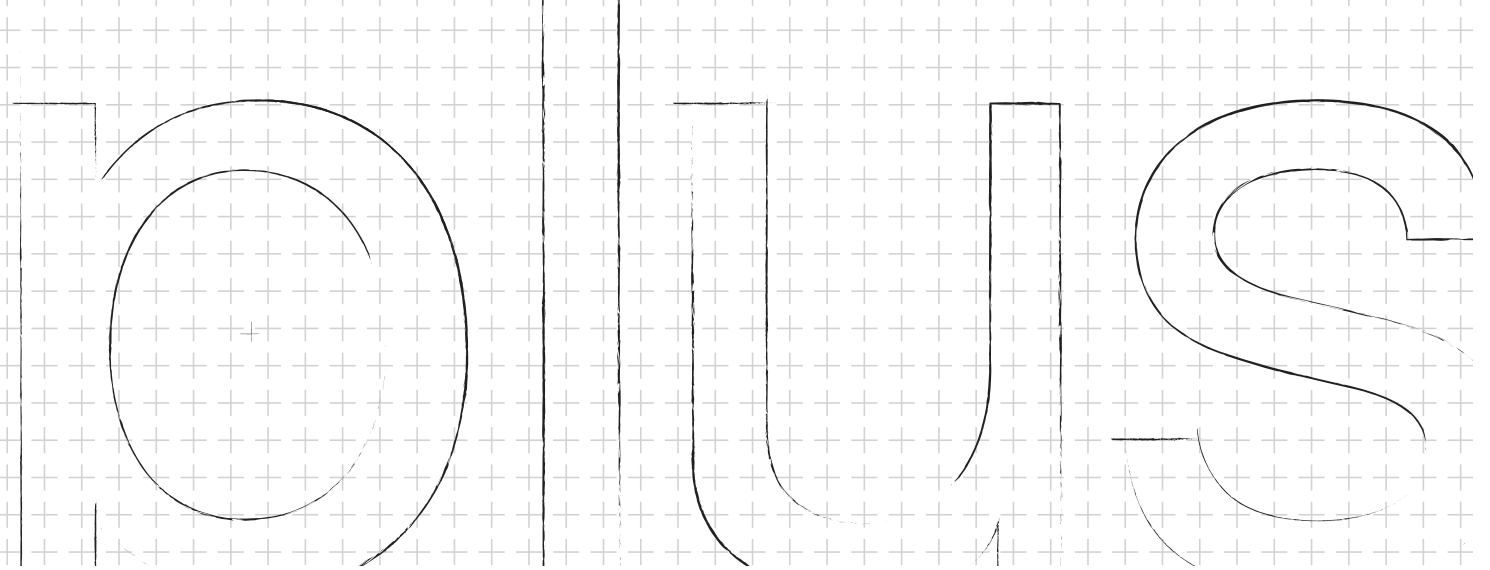
#### Discontinued products

- Safety roller shutters FR23/FR24

#### Discontinued models

- V10: Discontinuation of box size 210
- Front-mounted roller shutters: Discontinuation of model with projecting arm
- Minimax guide rails: Now only available for V6  
Minimax middle rails have been completely discontinued
- Security package: Middle rails discontinued
- Asymmetrical roller shutters S6/S10: Discontinuation of box size 150
- Asymmetrical roller shutters S10: Discontinuation of box size 210
- NA-RO, inspection access outside, with size 120 shaft depth:  
Discontinuation of model with plastic guide rails
- Discontinuation of semi-embedded belt winder
- Discontinuation of crank winder for belt





Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Interesting facts about planning

## TechDataPLUS – more information for planners and architects

In the new, digital documents, TechDataPLUS, you will find information that is not provided in this printed technical data. A separate TechDataPLUS is available for each product chapter.

### In TechDataPLUS, you will find

- Interesting facts planning and standards
- Even more mounting examples
- More product variants
- More supplementary accessories
- And more detailed technical data

### The following TechDataPLUS are available for each chapter:

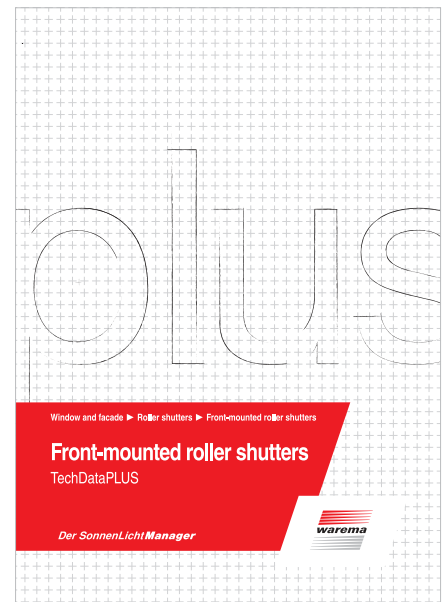
- Front-mounted roller shutters  
+ <https://docs.warema.com/1.1313.9>
- Asymmetrical roller shutters (only TechDataPLUS)  
+ <https://docs.warema.com/1.1316.2>
- Top-mounted roller shutters  
+ <https://docs.warema.com/1.1314.0>
- External shaft roller shutters incl. roller shutters for on-site lintel boxes  
+ <https://docs.warema.com/1.1315.1>

### There is also a TechDataPLUS for each of the following:

- Supplementary accessories  
+ <https://docs.warema.com/1.1317.3>
- Components  
+ <https://docs.warema.com/1.1318.4>
- Drive variants  
+ <https://docs.warema.com/1.1319.5>

You can also easily reach the relevant TechDataPLUS via the "Further information" info box at the end of each chapter. You can click on the corresponding link there.

You can find the TechDataPLUS documents in the sales document as well as on the WAREMA website + [www.warema.com](http://www.warema.com)



## News / Highlights

# Innovative products from the SunLight Manager



### Even more flexible fall protection VisioNeo

The tried and tested fall protection VisioNeo can also be used in combination with permanent glazing. An additional option for glass fixing is available on the mullion for VisioNeo - no sun shading system guidance is required. Another variant with glass seats on both sides is also available. And last but not least, fall protection VisioNeo is also available as an individual product, VisioNeo Single, which does not have an integrated sun shading system.







## SecuKit for larger areas **HIGHLIGHT\***

Thanks to the additional WAREMA SecuKit belt operation, motor-operated roller shutters can even be reliably operated in the event of a power failure. The advancement of the innovative system (available immediately) now guarantees that the roller shutter curtain can be raised quickly and easily.



## Easy planning with the structural console tool

With the new WAREMA structural consoles, the number of structural consoles required to absorb and divert wind loads can be easily calculated - perfect for easy planning of top-mounted roller shutters or top-mounted roller shutters for new buildings, for example.



## Combinable pollen protection **HIGHLIGHT\***

Insect screen fixed frames can conveniently now be ordered with VisionAir pollen screens with roller shutters, meaning effective pollen protection is included. The discreet insect screen fixed frames fit neatly in every window and ensure undisturbed and restful sleep when used in combination with the roller shutters.



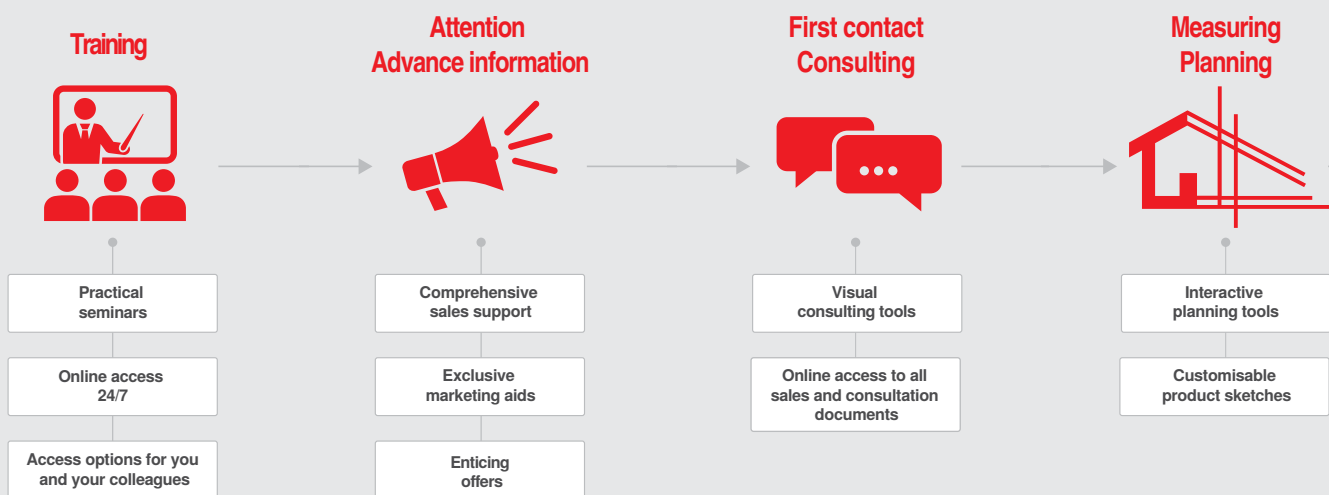
## Facade products pre-programmed with WMS

We are making programming easier. For all facade products in combination with WMS hand-held transmitters or WMS wall-mounted transmitters, the components can now be programmed to recognise each other and can be assigned a unique order position in my-WAREMA as desired.

Further information and the relevant WMS studio pro file (.wmssp file) can be found on [my.warema.com](http://my.warema.com)



## The perfect planning and buying process with myWAREMA



# Let's get the digital ball rolling with the myWAREMA online platform

With our advantage platform, you can benefit from simple and secure digital applications which make your day-to-day business even more efficient. From order processing and price calculations to planning tools, practical seminars and marketing services, you can see everything at a glance at any time - no matter whether you're in the office or on a smartphone or tablet when you're out and about. Optimise your planning and buying process with myWAREMA. This is how you are sure to succeed in your digital sales revolution!

## Simply login for great turnover!

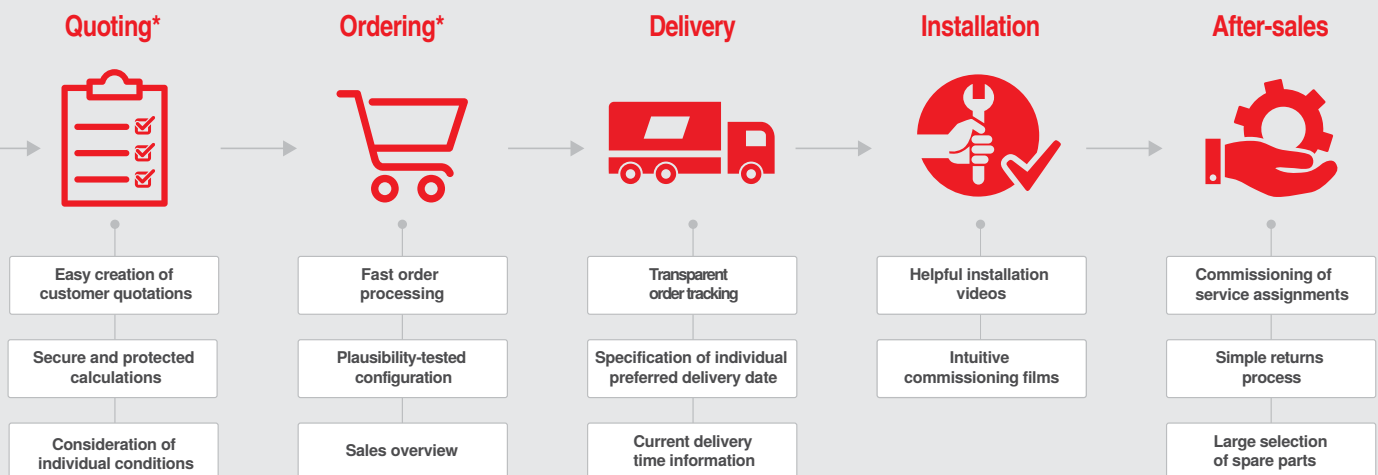
Request your personal access details today at [www.warema.com/mywarema](http://www.warema.com/mywarema) and see for yourself!

## Do you have questions?

Our expert team will be happy to help you:

☎ +49 9391 20-8080

✉ [my@warema.com](mailto:my@warema.com)



\*available optionally as system integration







# Contents

## Interesting facts about planning

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## Interesting facts about planning Colours

The trend towards an individual and high-grade window and facade design is ever-growing. Thanks to the WAREMA Colour World, wishes are left unfulfilled.

With the WAREMA Colour World, you can individually adapt the powder-coated aluminium parts of your sun shading system, such as cover panels, boxes, guide rails or articulated arms to your facade and your personal style. Up to five different finish qualities are available for selection depending on the category and colour.

The WAREMA Colour World defines which colours which you will receive when ordering a product with a specific colour specification to enable comparison with the colours used on site.

For slats, roller shutter curtains and fabrics, a colour collection or colour chart is available for the respective product. Using this, the components can be individually combined using the respective powder-coated components.



As an alternative to powder coating, the option of an anodised finish is available for many extruded aluminium parts.

An anodised model is available in the following colours:

- Anodised in natural colour: C0
- Anodised in colour:
  - C31 Light bronze
  - C32 Light bronze
  - C33 Medium bronze
  - C34 Dark bronze
  - C35 Black

Figures regarding anodised colour shades can be found in the Anodised colour chart.





Planning

Front-mounted roller shutters

## Colouring of roller shutter components

|                 | Boxes                                                                                                                                                                                                          | Guide rails, end rails                                                                           | Shutter profiles                                                                               |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Material        | Aluminium                                                                                                                                                                                                      | Aluminium                                                                                        | Aluminium or plastic                                                                           |
| Surface         | Powder-coated or coated in the coil coating process (V4)                                                                                                                                                       | Powder-coated                                                                                    | Aluminium: Enamelled to be resistant to corrosion using a special process or made from plastic |
| Colours         | The palette of the RAL CLASSIC colour chart (except camouflage and luminous colours); six DB colours, four anodised-look colours, eight textured colours, further colours according to the WAREMA Colour World | Available in special colour shades deviating from the WAREMA colour specification at a surcharge | In accordance with WAREMA colour chart for shutter profiles                                    |
| Special colours | Available in special colour shades deviating from the WAREMA colour specification at a surcharge                                                                                                               | Available in special colour shades deviating from the WAREMA colour specification at a surcharge | Special colours for aluminium curtains on request                                              |

Top-mounted roller shutters

Shaft roller shutters

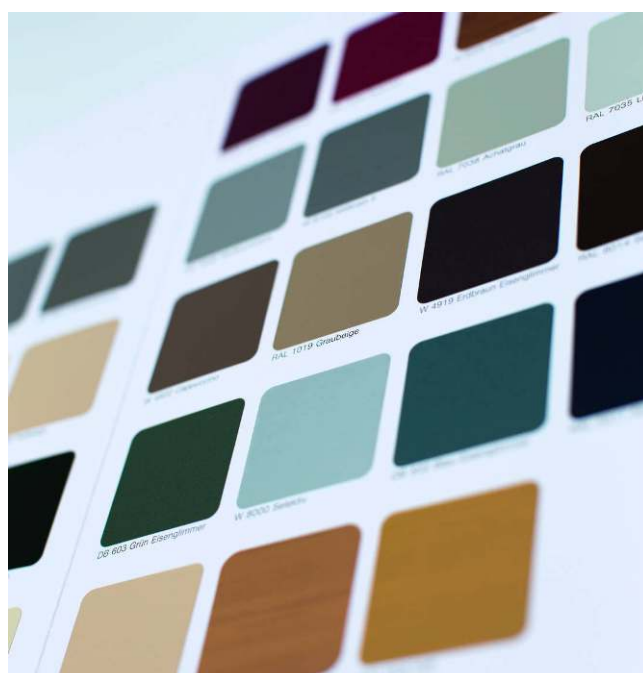
Detailed information on the colour selection can be found in the WAREMA Colour World brochure.

Supplementary accessories



Components

Drive variants



Standards

# The WAREMA Colour World

## Available for all powder-coated aluminium parts

Colour deviations are due to printing technology

Choose the perfect shade from over 250 attractive powder colours for the powder-coated aluminium parts such as guide rails, cover panels, profiles or boxes. The clearly arranged categories Highlight, Variation and Individual optimise your process of consultation and help to find the right colour for the individual sun shading system quickly and easily. Coatings in colours different to those of the WAREMA Colour World available on request.

### Categories

#### Highlight

12 RAL and DB basic colours form the foundation of the WAREMA Colour World. We offer you selected standard colours, which satisfy all of the latest colour trends.

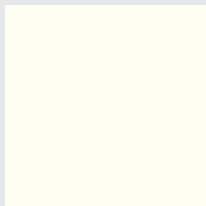
#### Variation

Make use of this opportunity to vary your design with a further 50 RAL basic colours and four surfaces. Any special colour concept can be realised.

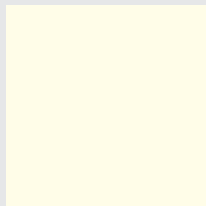
#### Individual

Over 200 additional colours complete the WAREMA Colour World and offer greater individuality. This means no wishes are left unfulfilled.

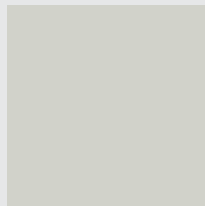
### Highlight Category



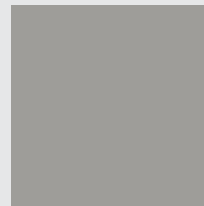
RAL 9016



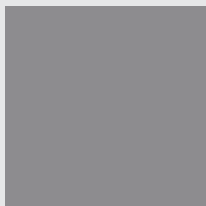
RAL 9010



RAL 7035



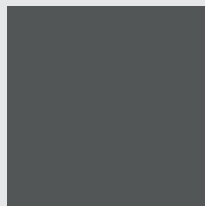
RAL 9006



RAL 9007



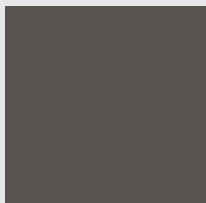
DB 702



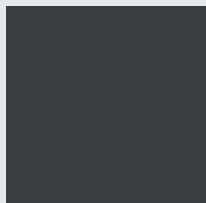
RAL 7012



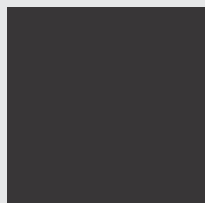
RAL 7015



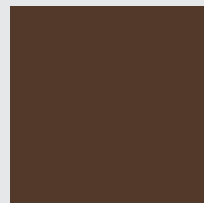
DB 703



RAL 7016



RAL 7021



RAL 8014

The displayed colours from the Highlight category form the basis of the WAREMA Colour World. The extended colour selection for the Variation and Individual categories can be found on the following page.



## Surface qualities

The various surfaces along with the comprehensive colour selection offer you the perfect opportunity to realise the individual wishes of customers. Choose from five surface qualities in order to perfectly optically adapt the gloss level and texture to the corresponding structural condition. The exceptional coating quality ensures longevity - independently tested by the German Quality Association for the Coating of Building Materials (GSB). The surface coating with chrome-free pretreatment is compliant with the directive GSB-AL 631. The aluminium parts are delivered in "GSB Sea-Proof" as standard.

You can find more information at [www.warema.com](http://www.warema.com)



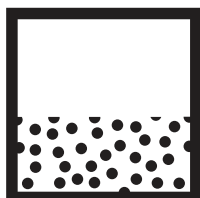
### Satin finish

Satin Finish is a slightly glossy surface with a smooth finish and optimal light and weather resistance.



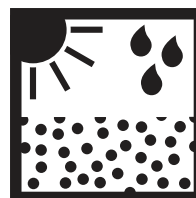
### Matt

A matt surface is distinguished by its smooth matt finish and optimal light and weather resistance.



### Fine texture

The fine text surface quality has striking effects and optimum light and weather resistance of the surface.



### Highly weather-resistant matt and fine texture

The highly weather-resistant surfaces in matt or fine texture are characterised by significantly improved weathering behaviour with regard to gloss retention, weathering, chalking and colour stability.



# The WAREMA Colour World

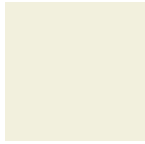
## Available for all powder-coated aluminium parts

Colour deviations are due to printing technology

### Variation Category



RAL 9003



RAL 9001



RAL 1015



RAL 1001



RAL 1019



RAL 7044



RAL 9002



RAL 7047



RAL 7038



RAL 7036



RAL 7004



RAL 7001



RAL 7040



RAL 7045



RAL 7042



RAL 7046



RAL 7037



RAL 7030



RAL 7039



RAL 7005



RAL 7043



RAL 7022



RAL 7024



RAL 7011



RAL 7031



RAL 5014



RAL 5007



RAL 5009



RAL 5010



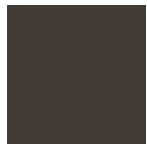
RAL 5002



RAL 5011



RAL 6005



RAL 6009



RAL 3000



RAL 3003



RAL 3004



RAL 3009



RAL 8001



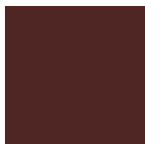
RAL 8003



RAL 8007



RAL 8011



RAL 8016



RAL 8017



RAL 8019



RAL 8022



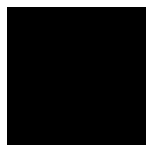
RAL 8077



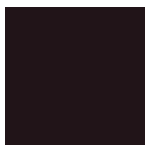
RAL 9011



RAL 9004



RAL 9005



RAL 9017

## Individual Category

|                                                                                                              |                                                                                                              |                                                                                                                |                                                                                                                         |                                                                                                                     |                                                                                                               |                                                                                                        |                                                                                                      |                                                                                                                 |                                                                                                           |                                                                                                           |                                                                                                   |                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <br>Trend Colour<br>(DM 05) | <br>Antique white<br>marble | <br>RAL 9018                  | <br>W 4914                             | <br>VEKA<br>Spectral<br>Light grey | <br>RAL 9006                 | <br>RAL 7004          | <br>RAL 9022        | <br>RAL 9007                  | <br>W 4915             | <br>RAL 9023           | <br>DB 701     | <br>VEKA<br>Spectral<br>Dark grey |
| <br>ALESTA<br>Grey          | <br>DB 704                  | <br>VEKA<br>Spectral<br>Brown | <br>Sparkling<br>iron effect<br>medium | <br>W 4916                         | <br>RAL 7010                 | <br>RAL 7048          | <br>WC 31           | <br>RAL 7023                  | <br>RAL 7033           | <br>RAL 7009           | <br>RAL 7003   | <br>WC 32                         |
| <br>RAL 7013                | <br>WC 33                   | <br>RAL 6014                  | <br>RAL 7329                           | <br>W 7329                         | <br>RAL 8019                 | <br>ALESTA<br>Brown   | <br>W 4918          | <br>W 4919                    | <br>RAL 8017           | <br>Rusted Iron<br>HWR | <br>RAL 8028   | <br>RAL 8025                      |
| <br>RAL 8008                | <br>RAL 8024                | <br>RAL 8003                  | <br>RAL 8002                           | <br>RAL 8015                       | <br>Rust Metal-<br>lic HWR   | <br>RAL 8001          | <br>RAL 1011        | <br>RAL 8023                  | <br>RAL 8004           | <br>RAL 8029           | <br>RAL 8012   | <br>Rust-Brown<br>Metallic        |
| <br>W 4922                  | <br>RAL 7006                | <br>RAL 8000                  | <br>RAL 1036                           | <br>RAL 7008                       | <br>RAL 1035                 | <br>RAL 7032          | <br>Sable BL<br>961 | <br>Beige<br>Metallic         | <br>Quartz 2<br>Satine | <br>Desert<br>Beige    | <br>RAL 1013   | <br>W 4800                        |
| <br>RAL 1014                | <br>RAL 1002                | <br>RAL 1024                  | <br>RAL 1027                           | <br>RAL 1005                       | <br>RAL 1012                 | <br>W 4912            | <br>RAL 1016        | <br>RAL 1018                  | <br>RAL 1023           | <br>RAL 1021           | <br>RAL 1032   | <br>RAL 1004                      |
| <br>RAL 1003                | <br>RAL 1017                | <br>RAL 1006                  | <br>RAL 1007                           | <br>RAL 1037                       | <br>RAL 1028                 | <br>RAL 1033          | <br>RAL 1034        | <br>RAL 2000                  | <br>RAL 2011           | <br>RAL 2003           | <br>RAL 2008   | <br>RAL 2009                      |
| <br>RAL 2004               | <br>RAL 2010               | <br>RAL 2001                 | <br>RAL 2012                          | <br>RAL 3022                      | <br>RAL 3012                | <br>RAL 2013         | <br>RAL 3033       | <br>RAL 3016                 | <br>RAL 2002          | <br>RAL 3020          | <br>RAL 3001  | <br>RAL 3002                     |
| <br>RAL 3013              | <br>RAL 3011              | <br>RAL 3032                | <br>RAL 3004                         | <br>W 3005                       | <br>RAL 3005               | <br>RAL 3007        | <br>RAL 3015      | <br>RAL 3014                | <br>RAL 3017         | <br>RAL 3018         | <br>RAL 3027 | <br>RAL 3031                    |
| <br>RAL 4002              | <br>RAL 4004              | <br>RAL 4007                | <br>W 4911                           | <br>RAL 4009                     | <br>RAL 4001               | <br>RAL 4011        | <br>RAL 4005      | <br>RAL 4003                | <br>RAL 4010         | <br>RAL 4006         | <br>RAL 4008 | <br>W 4913<br>(DM 04)           |
| <br>RAL 4012              | <br>RAL 5022              | <br>RAL 5013                | <br>RAL 5003                         | <br>RAL 5026                     | <br>RAL 5000               | <br>RAL 5007        | <br>RAL 5023      | <br>RAL 5014                | <br>RAL 7000         | <br>RAL 5024         | <br>RAL 5012 | <br>RAL 5015                    |
| <br>RAL 5005              | <br>RAL 5017              | <br>RAL 5019                | <br>RAL 5025                         | <br>RAL 5001                     | <br>W 4920                 | <br>RAL 5008        | <br>W 4917        | <br>RAL 5004                | <br>RAL 6027         | <br>RAL 6034         | <br>RAL 6033 | <br>RAL 5018                    |
| <br>RAL 5021              | <br>DB 502                | <br>RAL 5020                | <br>RAL 6004                         | <br>DB 603                       | <br>W 4921                 | <br>ALESTA<br>Green | <br>RAL 6005      | <br>Trend Colour<br>(DM 01) | <br>RAL 6028         | <br>RAL 6036         | <br>RAL 6026 | <br>RAL 6000                    |
| <br>RAL 6016              | <br>RAL 6029              | <br>RAL 6032                | <br>RAL 6024                         | <br>RAL 6019                     | <br>RAL 6021               | <br>RAL 6011        | <br>RAL 6035      | <br>RAL 6002                | <br>RAL 6001         | <br>RAL 6017         | <br>RAL 6018 | <br>RAL 6010                    |
| <br>RAL 6025              | <br>RAL 6013              | <br>RAL 7002                | <br>RAL 7034                         | <br>RAL 1020                     | <br>RAL 1000               | <br>RAL 6003        | <br>RAL 6020      | <br>RAL 6007                | <br>RAL 6012         | <br>RAL 7026         | <br>RAL 6006 | <br>RAL 6022                    |
| <br>RAL 6008              | <br>RAL 6015              | <br>WC 34                   | <br>Trend Colour<br>(DM 02)          | <br>Trend Colour<br>(DM 03)      | <br>P7 Iron<br>mica effect |                                                                                                        |                                                                                                      |                                                                                                                 |                                                                                                           |                                                                                                           |                                                                                                   |                                                                                                                      |

# Colours for shutter profiles

## End rail colour assignment:

When ordering loose roller shutter curtains, a predefined allocation applies to the end rail colour. The allocation of profile colours is as follows:

- Profile colour RAL 9016 and 510 - End rail RAL 9016 as standard
- RAL 8014, W 8026 and 543 - End rail RAL 8014 as standard
- All other profile colours - End rail C0-anodised as standard

The standard RAL colour allocation is for a satin finish model. Other finishes are available at a surcharge.

The predefined colour allocation does not apply to orders of finished elements. Here, the colour of the end rail should be explicitly specified on the order form.

## Limitation to colour selection for connecting units horizontally connected to asymmetrical roller shutters:

- For the roller shutter curtain A 36, the colour selection displayed only applies for horizontal units.
- For A 36 in conjunction with asymmetrical roller shutters, only RAL 1015, RAL 7035, RAL 7038, RAL 9006, RAL 9016 and W 4800 are available to choose from.

## Additional colours for S 37:

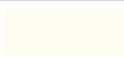
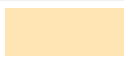
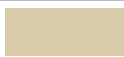
- As well as the colours indicated in the matrix, for roller shutter curtain S 37 a model in RAL 7012, RAL 7015 and RAL 7021 is possible.
- You can receive the colours for S 37 in the following finishes: satin finish, matt or fine texture.
- We recommend a fine texture finish, especially where dark profile colours are used.
- For S 37, there is no difference in price ranges within the matrix. Powder coating outside of this colour chart that is in accordance with WAREMA Colour World is available at a surcharge per square metre.

**Printed roller shutter curtain:** The shutter profile A 36, A 44 and A 53 can also be manufactured in a printed model.

- Colour differences between the roller shutter curtains and powder-coated aluminium parts cannot be avoided due to the different manufacturing processes.
- Colour deviations may occur due to printing technology.



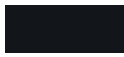
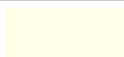
## Plastic roller shutter profiles

| Colour number | Colour designation |                                                                                   | Price range | Shutter profiles |      |      |
|---------------|--------------------|-----------------------------------------------------------------------------------|-------------|------------------|------|------|
|               |                    |                                                                                   |             | K 36             | K 52 | K 55 |
| 500           | Agate grey         |  | 1           | •                | •    | •    |
| 501           | Light grey         |  | 1           | •                | •    | •    |
| 510           | Traffic white      |  | 1           | •                | •    | •    |
| 515           | Light ivory        |  | 1           | •                |      |      |
| 522           | Light beige        |  | 1           | •                | •    | •    |
| 541           | Wood, light        |  | 1           | •                | •    | •    |
| 543           | Wood, dark         |  | 1           | •                |      |      |

Planning

Front-mounted roller shutters

## Aluminium shutter profiles

| Colour number | Colour designation          |                                                                                     | Price range | Shutter profiles |      |      |      |      |            |
|---------------|-----------------------------|-------------------------------------------------------------------------------------|-------------|------------------|------|------|------|------|------------|
|               |                             |                                                                                     |             | A 36             | A 44 | A 53 | A 56 | S 37 | A36 Sloped |
| DB 502        | Blue iron mica effect       |   | 2           | •                |      |      |      |      |            |
| DB 603        | Green iron mica effect      |  | 2           | •                |      |      |      |      |            |
| DB 702        | Grey iron mica effect       |  | 2           | •                |      |      |      | •    |            |
| DB 703        | Anthracite iron mica effect |  | 1           | •                |      | •    |      | •    |            |
| RAL 1015      | Light ivory                 |  | 1           | •                | •    | •    | •    |      | •          |
| RAL 1019      | Grey beige                  |  | 2           | •                |      |      |      |      |            |
| RAL 1036      | Pearl gold                  |  | 2           | •                |      |      |      |      |            |
| RAL 3004      | Purple red                  |  | 1           | •                |      |      |      |      |            |
| RAL 5011      | Steel blue                  |  | 1           | •                |      |      |      |      |            |
| RAL 6009      | Fir green                   |  | 1           | •                |      |      |      |      |            |
| RAL 7016      | Anthracite grey             |  | 1           | •                | •    | •    |      | •    |            |
| RAL 7035      | Light grey                  |  | 1           | •                | •    | •    | •    | •    | •          |
| RAL 7038      | Agate grey                  |  | 1           | •                | •    | •    | •    |      | •          |
| RAL 8014      | Sepia brown                 |  | 1           | •                | •    | •    | •    | •    |            |
| RAL 9006      | White aluminium             |  | 1           | •                | •    | •    | •    | •    | •          |
| RAL 9007      | Grey aluminium              |  | 1           | •                |      | •    |      | •    |            |
| RAL 9010      | Pure white                  |  | 1           | •                |      |      |      | •    |            |

Top-mounted roller shutters

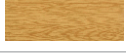
Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

| Colour number | Colour designation           |                                                                                   | Price range | Shutter profiles |      |      |      |      |            |
|---------------|------------------------------|-----------------------------------------------------------------------------------|-------------|------------------|------|------|------|------|------------|
|               |                              |                                                                                   |             | A 36             | A 44 | A 53 | A 56 | S 37 | A36 Sloped |
| RAL 9016      | Traffic white                |  | 1           | ●                | ●    | ●    | ●    | ●    | ●          |
| VSR 130       | Grey                         |  | 1           | ●                |      |      |      |      |            |
| W 3005        | Wine red pearl glimmer       |  | 2           | ●                |      |      |      |      |            |
| W 4800        | Light beige                  |  | 2           | ●                | ●    | ●    | ●    |      | ●          |
| W 4919        | Earth brown iron mica effect |  | 2           | ●                |      |      |      |      |            |
| W 4922        | Cappuccino                   |  | 2           | ●                |      |      |      |      |            |
| W 7329        | Dark bronze                  |  | 1           | ●                |      |      |      |      |            |
| W 8026        | Wood, dark                   |  | 2           | ●                | ●    | ●    | ●    |      |            |
| W 8105        | Wood, light                  |  | 2           | ●                | ●    | ●    | ●    |      |            |
| W 8780        | Light bronze                 |  | 1           | ●                |      |      |      |      |            |

## Colours for decor films

**Available plastic decor films for laminating plastic cover panels and plastic guide rails.**

- Unless otherwise stated, the decor films have a grained surface as standard.
- The laminated plastic parts have a white, grey or brown basic unit depending on the decor film.
- We reserve the right to make modifications to the range of decor films.
- Colour deviations may occur due to printing technology.

### Delivery time:

- The same delivery times apply to standard decor films, anthracite grey 701605-167 and anthracite grey smooth 701605-97, as to standard plastic models in white.
- For other standard decor films, an extension to the delivery time of one working week must be planned for.
- For special decor films, the delivery time is extended by approx. 3-4 weeks.

## Standard decor films

| Colour number | Colour designation     |                                                                                     |
|---------------|------------------------|-------------------------------------------------------------------------------------|
| 1             | Anthracite grey        |    |
| 2             | Anthracite grey smooth |   |
| 3             | Silver grey            |  |
| 4             | Black brown            |  |
| 6             | Bog oak                |  |
| 7             | Mahogany               |  |
| 8             | Walnut                 |  |
| 9             | Golden oak             |  |

## Special film designs

|                                   |                                |                                       |                                  |                                     |
|-----------------------------------|--------------------------------|---------------------------------------|----------------------------------|-------------------------------------|
| Agate grey<br>703805-167R         | Cream white<br>456-5054H       | Irish Oak<br>3211005-148P             | Noce Sorrento ecru<br>436-3041H  | Siena Rosso (Siena<br>PR) 49233C    |
| Anthracite grey<br>436-5003H      | Crown Platinum<br>1293001-195P | Light grey<br>725105-167R             | Oregon 4<br>1192001-167R         | Signal grey smooth<br>700405-97R    |
| Anthracite grey SFTN<br>436-7003H | Dark green<br>612505-167R      | Macoree 436-2001H                     | Papyrus white<br>456-5058H       | Silver grey smooth<br>715505-97R    |
| Antique white<br>456-5053H        | Dark red<br>308105-167R        | Macoré<br>3162002-167R                | Quartz grey smooth<br>436-7047H  | Soft Cherry<br>3214009-167P         |
| Basalt grey<br>701205-167R        | Earl Platinum<br>1293010-195P  | Mahogany<br>2097013-167R              | Quartz grey smooth<br>703905-97R | Steel blue<br>515005-167R           |
| Basalt grey smooth<br>701205-97R  | Light oak<br>3118076-168R      | Metbrush Aluminium<br>436-1001H       | Quartz grey<br>703905-167R       | Striped Douglas fir<br>3152009-167R |
| Basalt grey SFTN<br>436-7048H     | Medium oak<br>3149008-167R     | Metbrush anthracite<br>grey 436-1006H | Quartz Platinum<br>1293002-195P  | Fir green 436-5021H                 |
| Mountain pine<br>3069041-167R     | Mocca oak<br>436-2075H         | Metbrush quartz grey<br>436-1005H     | Rustic Cherry<br>3214007-195P    | Titanium SFTN<br>436-7049H          |
| Rosé birch 436-3031H              | Special oak<br>2052090-167R    | Metbrush Silver<br>436-1002H          | Slate grey<br>701505-167R        | Vermont (Siena PL)<br>49254C        |
| Black Cherry<br>3202001-155R      | Gale Grey FINESSE<br>49122C    | Montana (Shogun AC)<br>49197C         | Slate grey smooth<br>701505-97R  | Walnut Amaretto<br>436-3058H        |
| Brilliant blue<br>500705-167R     | Hazy Grey FINESSE<br>49124C    | Bog oak<br>3167004-167R               | Chocolate brown<br>887505        | Wine red<br>300505-167R             |
| Canadian (Shogun AD)<br>49195C    | Light ivory 456-5056H          | Moss green<br>600505-167R             | Black brown<br>436-5010H         | Winchester XA<br>49240C             |
| Cherry Amaretto<br>436-3043H      | Indian (Shogun AF)<br>49198C   | Noce Sorrento<br>Balsamico 436-3042H  | Siena Noce (Siena<br>PN) 49237C  |                                     |

- We reserve the right to make modifications.
- You will find the latest range of special decor films by using the WAREMA sales document search in the digital version of the colour chart for decor films.
- Other films are available on request.

### Further information

Colour chart for external venetian blind slats and roller shutter curtains  
[https://www.warema.de/\\_01-technik/PHP\\_VKU\\_W\\_V2/downloadDoc.php?id=18947](https://www.warema.de/_01-technik/PHP_VKU_W_V2/downloadDoc.php?id=18947)



Colour chart for decor films  
[https://www.warema.de/rollladen/dokumente/Folienfarben180716low\\_2023683FK.pdf](https://www.warema.de/rollladen/dokumente/Folienfarben180716low_2023683FK.pdf)



WAREMA Colour World brochure  
[https://www.warema.de/\\_01-technik/PHP\\_VKU\\_W\\_V2/downloadDoc.php?id=17989](https://www.warema.de/_01-technik/PHP_VKU_W_V2/downloadDoc.php?id=17989)









## Interesting facts about planning

### General information

### Manufacturing tolerances for roller shutters

Perfection lies in the detail - no wonder, then, that WAREMA sees even the minor details as paramount: each product is manufactured with millimetre precision according to the customer's requirements. Please note that when manufacturing to this degree of precision, production-related deviations can occur:

| Product variant             | Order width in mm | T in mm | Order height in mm | T in mm |
|-----------------------------|-------------------|---------|--------------------|---------|
| V4, V6, V10, S6, S10, AU-RO | ≤ 2000            | ± 1.5   | ≤ 1500             | ± 2     |
|                             | ≤ 4000            | ± 2     | ≤ 2500             | ± 3     |
|                             | > 4000            | ± 2.5   | > 2500             | ± 5     |
| NA-RO, RE-RO                | ≤ 2000            | ± 2     | ≤ 1500             | ± 2     |
|                             | ≤ 4000            | ± 3     | ≤ 2500             | ± 3     |
|                             |                   |         | > 2500             | ± 5     |
| SE-RO                       | ≤ 2000            | ± 2     | ≤ 1500             | ± 2     |
|                             | ≤ 3500            | ± 3     | ≤ 2500             | ± 3     |
|                             | > 4000            | ± 1.5   | > 2500             | ± 5     |

# Summer thermal protection – comfortable temperatures with WAREMA sun shading products

Consideration of summer thermal protection is essential in modern architecture. A well insulated outer facade effectively protects against heat loss in winter, but prevents the heat coming in through the glazing in summer. Therefore, sunlight into the building must be regulated to prevent the rooms from heating up excessively. This often prevents the need for high-energy cooling of the rooms.

Overheating can be most effectively prevented by externally mounted sun shading systems, such as external venetian blinds, awnings or roller shutters. The lower the amount of radiation and heat through the external sun shading systems and glazing, the cooler the rooms remain.

With internal sun shading systems, it is important that the radiation that falls onto the sun shading system through the glazing is reflected back to the outside in the most efficient manner possible. The amount of radiation energy absorbed inside the building will remain there (greenhouse effect).

Likewise, an effective intermediate sun shading system, e.g. in a composite or casement window, must not absorb too much energy, as if so, the space between will get too hot. In addition to excessive heat input, this can cause material problems. High transmittance also leads to a high incidence of energy. The optimum product must be found for the window/sun shading system combination concerned. We are happy to advise you.

## Calculating the $g_{tot}$ and $F_c$ values – combination of sun shading system and glazing

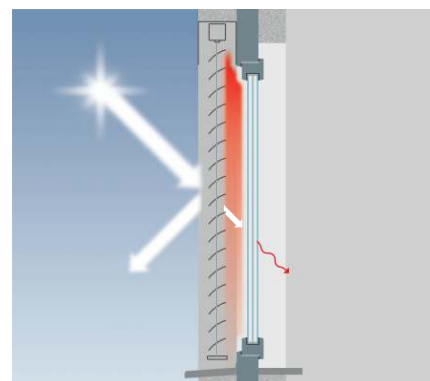
The calculation of the value for thermal protection in the summer includes the total solar energy transmittance  $g_{tot}$  for the combination of sun shading system and glazing, or the shading factor  $F_c$ .

The  $F_c$  value is equal to the ratio of the total solar energy transmittance of the sun shading system and glazing combination to the  $g$  value of the glazing ( $F_c = g_{tot}/g$ ).

The glazing is thus also always included in the calculation of the  $F_c$  value. This means that it is also not possible to specify a fixed  $F_c$  value for a sun shading product.

We therefore offer, for the initial assessments, reference values for  $g_{tot}$  and  $F_c$  values for our sun shading products in different colours and for various glazing options. These are available at [www.warema.de/bauphysik](http://www.warema.de/bauphysik).

For the calculation of the  $g_{tot}$  and  $F_c$  values for construction project-specific combinations of sun shading systems and glazing, call the Hotline for building physics and sustainable building.



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

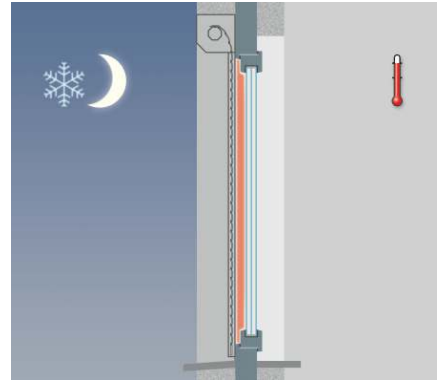
Standards

Building Physics and Sustainable Building hotline  
Tel.: +49 9391 20-3025  
E-mail [bauphysik@warema.de](mailto:bauphysik@warema.de)  
[www.warema.de/bauphysik](http://www.warema.de/bauphysik)

## Winter heat protection - heat energy savings

When lowered and closed as far as possible, sun shading products offer additional thermal resistance, improving the heat transmission coefficient of the window at the same time. We therefore recommend activating existing sun shading products on winter nights. The pleasant side effect of this is that the window panes do not ice over on the outside and less condensation forms on the inside. Internal products, which significantly improve the heat insulation through the reduced thermal transmission to the window, however, can lead to increased condensation formation on the inside of the window and a more severe icing over of outside window panes.

To allow sunray energy to stream into the room unhindered on winter days, the sun shading system must not be activated if at all possible. As glare control, we recommend an internal sun shading system with a high degree of absorptance. The external sun shading system should be activated only if the room becomes too warm.



Let us advise you!

- We will calculate for you the  $g_{\text{tot}}$  value, the  $F_c$  value and the colour rendering index  $R_a$  for the sun shading system and glazing combination.
- We will provide you with radiation physics data for WAREMA products (transmittance, reflectance and absorptance).
- We will provide assistance with data for thermal simulations, sound insulation, thermal bridge calculations, and thermal protection in summer and winter.
- We can advise you on sustainability certifications such as DGNB, BNB or LEED.

Building Physics and Sustainable  
Building hotline  
Tel.: +49 9391 20-3025  
E-Mail: [bauphysik@warema.de](mailto:bauphysik@warema.de)  
[www.warema.de/bauphysik](http://www.warema.de/bauphysik)



## Natural light is important - visual comfort

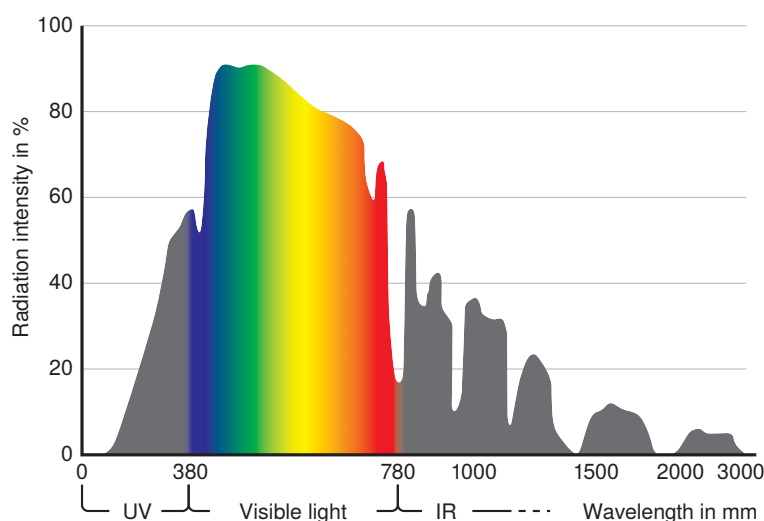
Natural light is very important for the human body. It makes us more efficient and our body clock is also influenced by the changes in light during the course of the day. It is therefore important, even when a sun shading system is activated, to find a compromise between a minimum incidence of energy and a good supply of daylight.

For example, the incidence of energy in a room with an external venetian blind that has dark closed slats is very low, but the room is also very dark. Artificial lighting is required, and this warms up the room again. An external venetian blind with light slats in the horizontal slat position or an awning with light fabric, on the other hand, allow a lot of light, and therefore a high amount of energy, into the room.

Too much light, however, can also cause glare. Therefore, glare protection suitability also plays a key role in the selection of sun shading products. Solutions that interrupt eye contact with extremely light solar discs are especially suitable. These include external venetian blinds and venetian blinds or vertical louvre blinds, roller blinds and awnings with opaque fabrics. Yet glare can sometimes occur even when white external venetian blinds are closed. The amount of light transmission, therefore, must not be too high.

The view out of the window, even with an activated sun shading system, is also important to our feeling of well-being. For most of the day, external venetian blinds or venetian blinds can be set so the view outside can be enjoyed glare-free. Semi-transparent fabrics also allow a view outside. However, because sun shading products with semi-transparent fabrics sometimes allow glare, especially when the sun is low, we recommend, for example for awnings with semi-transparent fabrics, an opaque curtain for internal glare control.

An often underestimated factor for visual comfort is the colour rendering index. This indicates how naturally colours are rendered. 100 means optimal colour rendering. For products with low indices, the colour rendering changes significantly. A white sheet of paper, for example, will appear orange instead of white.





# Contents

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# Front-mounted roller shutters

## Front-mounted roller shutter V4

### All-rounder

Versatile, meaning it can be used regardless of the building design - for retrofitting as well as renovations or new buildings.

### Efficient

Thermal bridges are prevented and energy is thus saved thanks to the external box.

### Attractive

You can choose from 12 attractive colours in 5 different finishes for powder-coated aluminium parts.



### Construction limit values

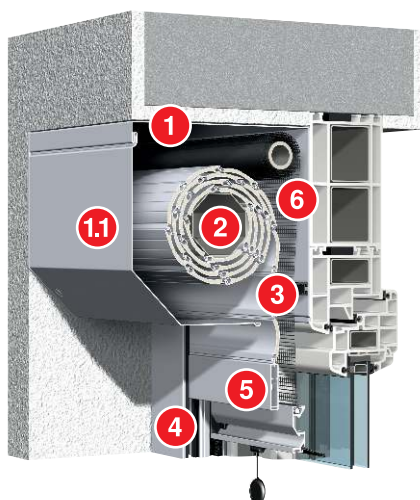
|                                   |                    |
|-----------------------------------|--------------------|
| Maximum order width               | 3000 mm            |
| Maximum order height              | 3250 mm            |
| Maximum order area                | 7.0 m <sup>2</sup> |
| Maximum order width of group unit | 4000 mm            |



### Product characteristics

- roll-formed/folded box
- Triangular design end rail, standard feature
- Insect screen, optional

## Components



|     |                        |   |                                       |
|-----|------------------------|---|---------------------------------------|
| 1   | Box                    | 4 | Lateral guidance                      |
| 1.1 | Inspection cover       | 5 | Bottom rail                           |
| 2   | Shaft                  | 6 | Insect screen roller blind (optional) |
| 3   | Roller shutter curtain |   |                                       |

### Box

#### Box shape V4 Rectangular

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Material                | Aluminium, roll-formed/folded                            |
| Surface                 | Coated                                                   |
| Material, notes         | Coated using coil coating process, incl. protective film |
| Box sizes               | 130, 150, 170, 190                                       |
| Box model               | Closed on 4 sides                                        |
| Unwinding direction     | Left-rolling blind                                       |
| Plaster piece, optional | Plaster piece 12 mm                                      |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Material        | Aluminium, roll-formed/folded                            |
| Surface         | Coated                                                   |
| Material, notes | Coated using coil coating process, incl. protective film |

+ see "Box shape V4, rectangular", Page 38

#### Box shape V4 Square

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Material                | Aluminium, roll-formed/folded                            |
| Surface                 | Coated                                                   |
| Material, notes         | Coated using coil coating process, incl. protective film |
| Box sizes               | 130, 150, 170, 190                                       |
| Box model               | Closed on 4 sides                                        |
| Unwinding direction     | Left-rolling blind                                       |
| Plaster piece, optional | Plaster piece 12 mm                                      |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Material        | Aluminium, roll-formed/folded                            |
| Surface         | Coated                                                   |
| Material, notes | Coated using coil coating process, incl. protective film |

+ see "Box shape V4, square", Page 39

#### Box shape V4 Round

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Material                | Aluminium, roll-formed/folded                            |
| Surface                 | Coated                                                   |
| Material, notes         | Coated using coil coating process, incl. protective film |
| Box sizes               | 150, 170, 190                                            |
| Box model               | Closed on 4 sides                                        |
| Unwinding direction     | Left-rolling blind                                       |
| Plaster piece, optional | Plaster piece 12 mm                                      |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Material        | Aluminium, roll-formed/folded                            |
| Surface         | Coated                                                   |
| Material, notes | Coated using coil coating process, incl. protective film |

⊕ see "Box shape V4, round", Page 39

##### Box shape V4 Plaster (optional)

|                         |                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------|
| Material                | Aluminium, roll-formed/folded                                                             |
| Surface                 | Coated, Plain                                                                             |
| Material, notes         | For V4 Plaster, also observe the detailed information about the box regarding the finish. |
| Box sizes               | 130, 150, 170, 190                                                                        |
| Box model               | Closed on 3 sides                                                                         |
| Box model, optional     | Closed on 4 sides                                                                         |
| Unwinding direction     | Left-rolling blind                                                                        |
| Plaster piece           | Plaster piece 12 mm                                                                       |
| Plaster piece, optional | Plaster piece 26 mm                                                                       |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. The angle brackets are supplied as standard for box shape Plaster.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

#### + Plaster base profile

##### 25 mm projection

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| Material        | Aluminium, extruded                                        |
| Surface         | Powder-coated                                              |
| Material, notes | Plaster base profile and plaster pieces are powder-coated. |

- 25 mm projection

Plaster base profile, optional:

- 10 mm projection
- 15 mm projection
- 20 mm projection
- 40 mm projection
- Plaster base profile, shortened

⊕ see "Box shape V4, plaster", Page 40

## Shaft

##### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

## Roller shutter curtain

- A 36
- A 44
- A 53
- K 36

⊕ see "Roller shutter curtain", Page 274

## Bottom rail

- Triangular design end rail
- End rail, optional:
- Flat end rail

⊕ see "End rails", Page 322

## Guide variants

- Rail guidance

## Guide rail

- Guide rail 55-25

Guide rail, optional:

- Guide rail 46-25
- Guide rail 55-47
- Guide rail 55-46
- Guide rail 55-35
- Guide rail 55-45
- Guide rail 55-65
- Guide rail 55-75
- Guide rail 80-25
- Guide rail 55-85

⊕ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

Basic motor, optional:

- WAREMA SecuKit, motor with additional belt operation
- Motor with additional collapsible crank ZHK
- Motor with battery module

### Radio motor, optional

- WMS Radio motor type WMS-RT inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RT incl. EWFS Wall-mounted transmitter 1-channel, wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with internal gear

Crank, optional:

- Crank with extendible gear

### Gear

- Crank type 1, crank
- Crank type 2, bevel gear

### Belt

- Belt, 14 mm

Belt, optional:

- Belt, 23 mm (only in connection with box shape plaster and box extension; note limited order height, see Chapter "Drives")
- Belt with extendible belt disc (14 mm belt)
- Belt deflection
- Step-up gear for belt

### Cord, optional

- Internal cord

+ see "Drive variants", Page 329

## Colours

- WAREMA Colour World / Highlight category
- Colours for shutter profiles

+ see "Colours", Page 12

## Insect screen

Insect screen, optional:

- Integrated insect screen roller blind
- Integrated insect screen fixed frame
- Integrated insect screen swivel door
- Integrated insect screen swinging door
- Integrated insect screen pleated blind

+ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen
- Quick installation kit
- Integrated lintel insulation
- Guide rails with integrated insulation
- Printed roller shutter curtain
- WAREMA SecuKit
- Motor with additional collapsible crank ZHK
- Battery module UP
- Emergency power supply kit

+ see "Supplementary accessories", Page 235

## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum box width:** rectangular, round, square box shape 3000 mm, plaster box shape 4000 mm
- **Maximum width for models with guide rails 46:** max. 1500 mm for K 36; 1800 mm for A 36
- **Additional box fastening:** recommended with order width of 1500 mm and up
- **Maximum number of single roller shutter curtains within a group unit:** 3
- **Model with integrated insect screen:** exclusively possible in combination with flat end rails

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 3250 mm              | 7 m <sup>2</sup>   | 4000 mm                           | 18 m <sup>2</sup>                |
| A 44                                                   |                     | 3000 mm             | 2350 mm              | 7 m <sup>2</sup>   | 4000 mm                           | 14,5 m <sup>2</sup>              |
| A 53                                                   |                     | 3000 mm             | 2000 mm              | 6 m <sup>2</sup>   | 4000 mm                           | 12 m <sup>2</sup>                |
| K 36                                                   |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 4000 mm                           | 9,6 m <sup>2</sup>               |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 640 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 660 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt / Cord                                    | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 710 mm              | 2000 mm             | 2250 mm              | 4,5 m <sup>2</sup> |                                   |                                  |
| Insect screen roller blind without soft-raise function | 530 mm              | 2000 mm             | 2250 mm              | 4,5 m <sup>2</sup> |                                   |                                  |

Construction limit values for a model with further insect screen solutions, such as insect screens for doors, can be found in the TechDataPLUS under additional product information.

## Maximum order area per operating class

| Configuration variants                         | Operating classes   |                   |                    |
|------------------------------------------------|---------------------|-------------------|--------------------|
|                                                | Design-related      | Operating class 1 | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                     |                   |                    |
| A 36 + Motor                                   | 18 m <sup>2</sup>   |                   |                    |
| A 44 + Motor                                   | 14,5 m <sup>2</sup> |                   |                    |
| A 53 + Motor                                   | 12 m <sup>2</sup>   |                   |                    |
| K 36 + Motor                                   | 9,6 m <sup>2</sup>  |                   |                    |
| A 36 + Crank type 1                            | 5 m <sup>2</sup>    | 5 m <sup>2</sup>  | 3 m <sup>2</sup>   |
| A 44 + Crank type 1                            | 5 m <sup>2</sup>    | 5 m <sup>2</sup>  | 2,5 m <sup>2</sup> |
| A 53 + Crank type 1                            | 4 m <sup>2</sup>    | 4 m <sup>2</sup>  | 2,5 m <sup>2</sup> |
| K 36 + Crank type 1                            | 5 m <sup>2</sup>    | 5 m <sup>2</sup>  | 2,5 m <sup>2</sup> |
| A 36 + Crank type 2                            | 8 m <sup>2</sup>    | 8 m <sup>2</sup>  | 5,5 m <sup>2</sup> |
| A 44 + Crank type 2                            | 8 m <sup>2</sup>    | 8 m <sup>2</sup>  | 4,5 m <sup>2</sup> |
| A 53 + Crank type 2                            | 7 m <sup>2</sup>    | 7 m <sup>2</sup>  | 4,5 m <sup>2</sup> |
| K 36 + Crank type 2                            | 8 m <sup>2</sup>    | 8 m <sup>2</sup>  | 4,5 m <sup>2</sup> |
| A 36 + Crank with extendible gear              | 3 m <sup>2</sup>    | 3 m <sup>2</sup>  | 3 m <sup>2</sup>   |
| A 44 + Crank with extendible gear              | 3 m <sup>2</sup>    | 3 m <sup>2</sup>  | 2,5 m <sup>2</sup> |
| A 53 + Crank with extendible gear              | 2 m <sup>2</sup>    | 2 m <sup>2</sup>  | 2 m <sup>2</sup>   |
| K 36 + Crank with extendible gear              | 3 m <sup>2</sup>    | 3 m <sup>2</sup>  | 2,5 m <sup>2</sup> |
| A 36 + Internal belt                           | 4 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 44 + Internal belt                           | 4 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 53 + Internal belt                           | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| K 36 + Internal belt                           | 4 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 36 + Extendible belt disc, belt 14 mm        | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 44 + Extendible belt disc, belt 14 mm        | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 53 + Extendible belt disc, belt 14 mm        | 2 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| K 36 + Extendible belt disc, belt 14 mm        | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 36 + Belt deflection                         | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 44 + Belt deflection                         | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 53 + Belt deflection                         | 2 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| K 36 + Belt deflection                         | 3 m <sup>2</sup>    | 2 m <sup>2</sup>  | 1 m <sup>2</sup>   |
| A 36 + Step-up gear for belt                   | 8 m <sup>2</sup>    | 4 m <sup>2</sup>  | 2 m <sup>2</sup>   |
| A 44 + Step-up gear for belt                   | 7 m <sup>2</sup>    | 4 m <sup>2</sup>  | 2 m <sup>2</sup>   |
| A 53 + Step-up gear for belt                   | 6 m <sup>2</sup>    | 4 m <sup>2</sup>  | 2 m <sup>2</sup>   |
| K 36 + Step-up gear for belt                   | 7 m <sup>2</sup>    | 4 m <sup>2</sup>  | 2 m <sup>2</sup>   |
| A 36 + Internal cord                           | 2 m <sup>2</sup>    | 1 m <sup>2</sup>  | 0,5 m <sup>2</sup> |
| A 44 + Internal cord                           | 1,5 m <sup>2</sup>  | 1 m <sup>2</sup>  | 0,5 m <sup>2</sup> |
| A 53 + Internal cord                           | 1,5 m <sup>2</sup>  | 1 m <sup>2</sup>  | 0,5 m <sup>2</sup> |
| K 36 + Internal cord                           | 1,5 m <sup>2</sup>  | 1 m <sup>2</sup>  | 0,5 m <sup>2</sup> |

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order height per box size

| Configuration variants                        | Box sizes |         |         |         |
|-----------------------------------------------|-----------|---------|---------|---------|
|                                               | 130       | 150     | 170     | 190     |
| <b>Roller shutter curtain</b>                 |           |         |         |         |
| A 36                                          | 1400 mm   | 1900 mm | 2750 mm | 3250 mm |
| A 44                                          | 650 mm    | 1100 mm | 1700 mm | 2350 mm |
| A 53                                          | 550 mm    | 900 mm  | 1300 mm | 2000 mm |
| K 36                                          | 1400 mm   | 1900 mm | 2650 mm | 3000 mm |
| <b>Roller shutter curtain + Guide rail</b>    |           |         |         |         |
| A 36 + Guide rail 55-47                       |           | 1600 mm | 2750 mm | 3250 mm |
| K 36 + Guide rail 55-47                       |           | 1600 mm | 2650 mm | 3000 mm |
| <b>Roller shutter curtain + Insect screen</b> |           |         |         |         |
| A 36 + Integrated insect screen roller blind  |           |         | 1550 mm | 2250 mm |
| K 36 + Integrated insect screen roller blind  |           |         | 1550 mm | 2250 mm |

Insect screen roller blind only available from box size 170.

## Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2780 mm | 2705 mm | 2560 mm | 2265 mm | 1825 mm | 1500 mm |
| A 44                          | 3500 mm               | 3295 mm | 3200 mm | 3010 mm | 2625 mm | 2055 mm | 1600 mm |
| A 53                          |                       |         | 3500 mm | 3370 mm | 3020 mm | 2490 mm | 1790 mm |
| K 36                          | 2000 mm               | 1750 mm | 1600 mm | 1400 mm | 1200 mm | 1000 mm | 900 mm  |

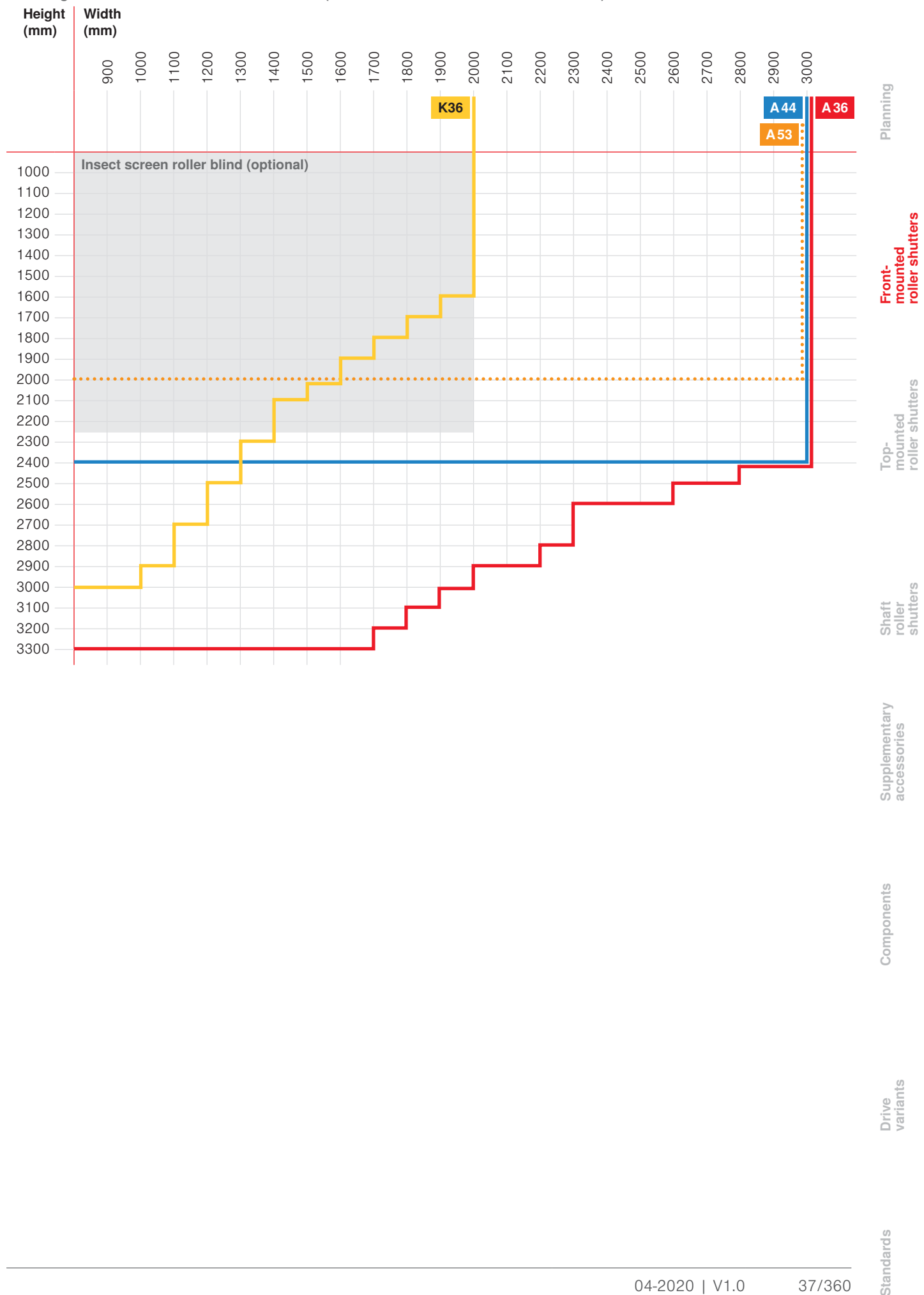
### Change to wind resistance class for guide rails deviating from the standard:

- For size 46 guide rails, the wind resistance class reduces by one class.
- For guide rails 80-25, the wind resistance class improves by one class.

Wind resistance class 1 generally applies to insect screen roller blinds.



Area diagram for front-mounted roller shutter V4 (maximum dimensions for individual areas)



## Dimension determination

| Reference dimension | Dimension determination                                    |
|---------------------|------------------------------------------------------------|
| Order width         | Back edge of the guide rail to back edge of the guide rail |
| Order height        | Bottom edge of the guide rail to top edge of the box       |
| Box height          | see box dimensions for each box shape                      |
| Box depth           | see box dimensions for each box shape                      |
| Air                 | 5 mm                                                       |

- **Operation side:** seen from inside
- **Box size:** If a box size deviating from the standard (see construction limit values table) is desired, this must be specified with the order.
- **Plaster pieces:** specified if necessary (standard 12 mm plaster pieces included with box shape plaster, otherwise optional)

## Box dimensions

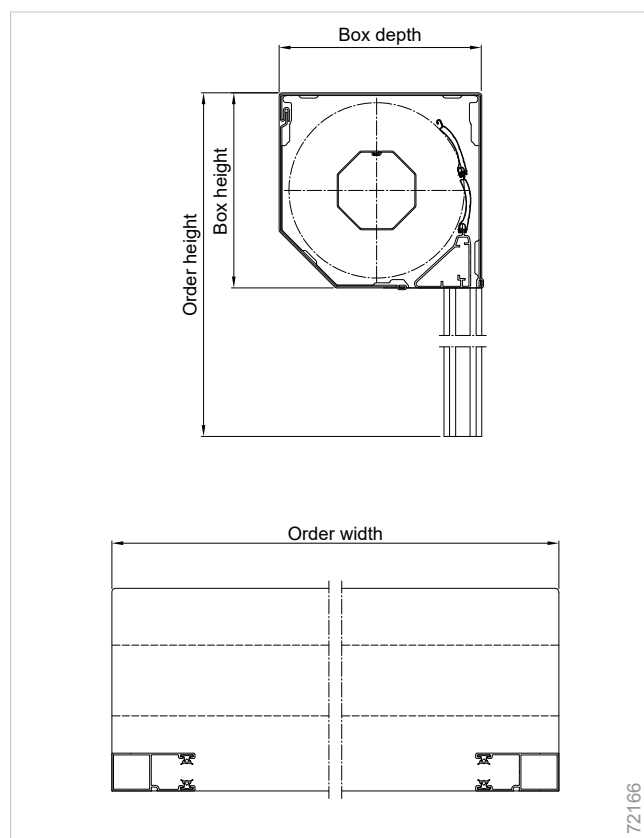
### Box shape V4, rectangular

- Box closed on 4 sides as standard (maximum box width: 3000 mm)

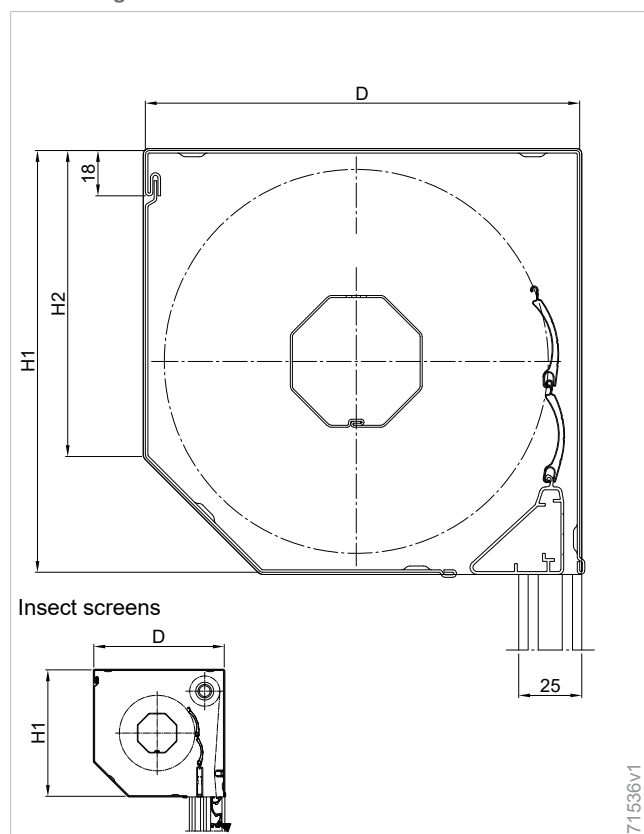
| Box sizes | H1     | H2     | D      |
|-----------|--------|--------|--------|
| 130       | 129 mm | 92 mm  | 134 mm |
| 150       | 149 mm | 108 mm | 154 mm |
| 170       | 169 mm | 123 mm | 174 mm |
| 190       | 189 mm | 137 mm | 194 mm |

- Mitre cuts are not possible.

### Order dimension determination V4



### V4 Rectangular



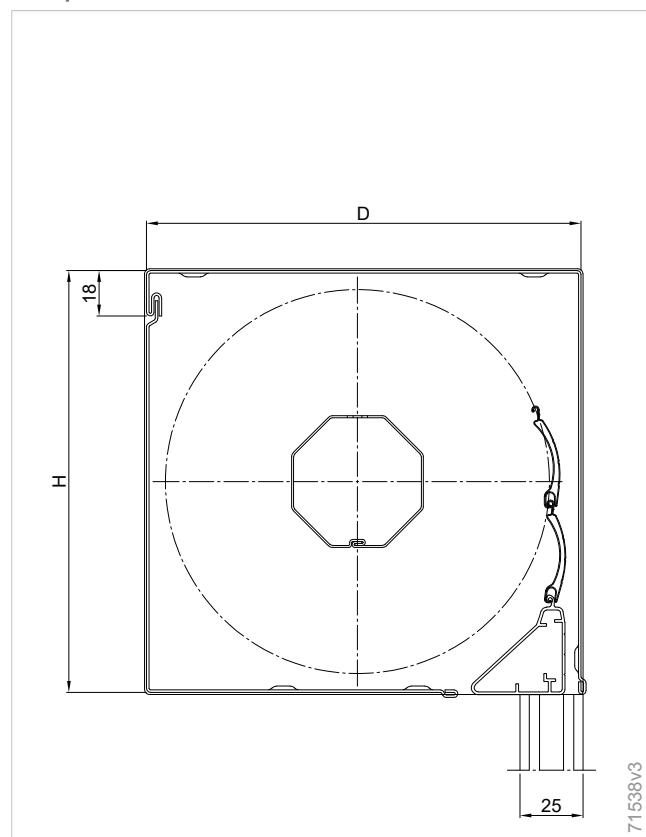
## Box shape V4, square

- Box closed on 4 sides as standard (maximum box width: 3000 mm)

| Box sizes | H      | D      |
|-----------|--------|--------|
| 130       | 129 mm | 134 mm |
| 150       | 149 mm | 154 mm |
| 170       | 169 mm | 174 mm |
| 190       | 189 mm | 194 mm |

- Mitre cuts are not possible.

## V4 Square



Planning

Front-mounted roller shutters

Top-mounted roller shutters

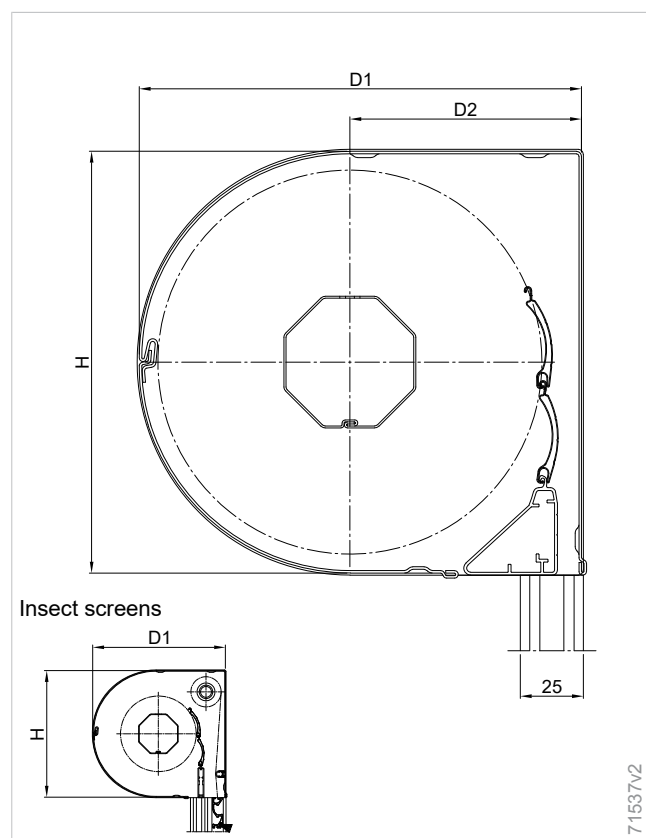
## Box shape V4, round

- Box closed on 4 sides as standard (maximum box width: 3000 mm)

| Box sizes | H      | D1     | D2     |
|-----------|--------|--------|--------|
| 150       | 149 mm | 157 mm | 80 mm  |
| 170       | 169 mm | 177 mm | 90 mm  |
| 190       | 189 mm | 197 mm | 100 mm |

- Mitre cuts are not possible.

## V4 Round



Shaft roller shutters

Supplementary accessories

Components

Drive variants

## Box shape V4, plaster

- Box closed on 3 sides as standard (maximum box width: 3000 mm)
- Box closed on 4 sides optional (maximum box width: 4000 mm)

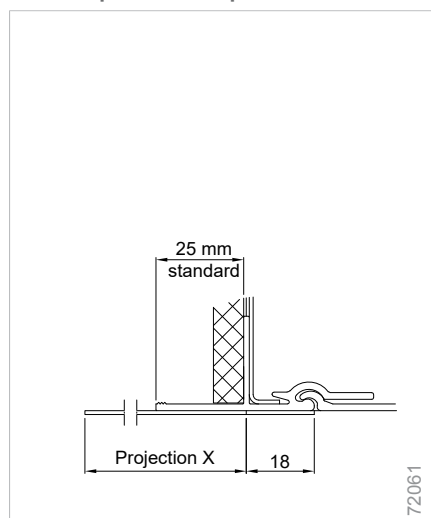
### Finishes for V4 Plaster:

- For model in RAL 9016:
  - Box incl. rear side (for boxes closed on 4 sides), plain
  - Inspection cover, plaster base profile and plaster pieces powder-coated
- For models in all other colours:
  - Box incl. rear side (for boxes closed on 4 sides), powder-coated
  - Inspection cover, plaster base profile and plaster pieces powder-coated

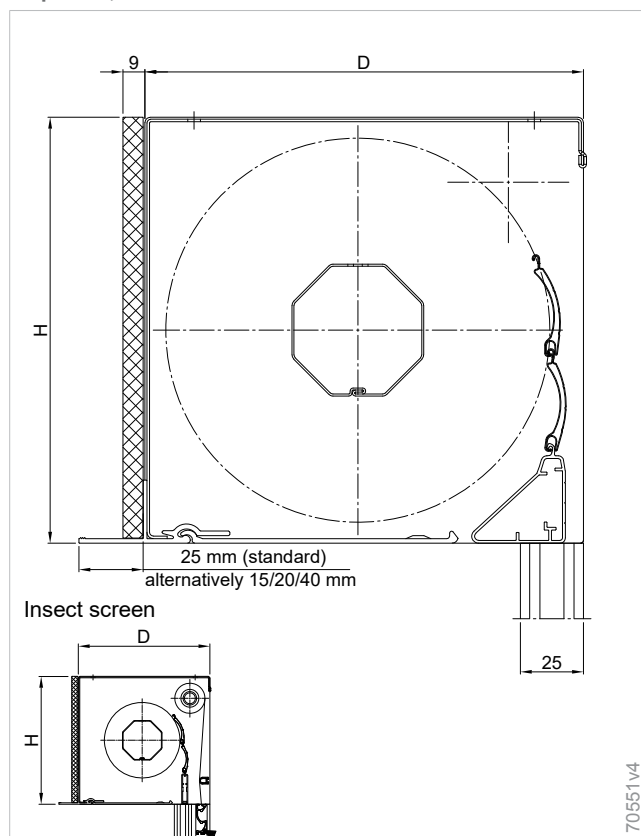
| Box sizes | H      | D      |
|-----------|--------|--------|
| 130       | 129 mm | 134 mm |
| 150       | 149 mm | 154 mm |
| 170       | 169 mm | 174 mm |
| 190       | 189 mm | 194 mm |

- Plaster base profiles with a projection are available in intermediate sizes upon enquiry.
- The projection of the plaster base profile must be 15 mm for an exterior insulation and finish system (EIFS).
- The plaster base profile is used as a visual closure and is not suitable for bearing loads from the insulation.
- Mitre cuts are not possible.

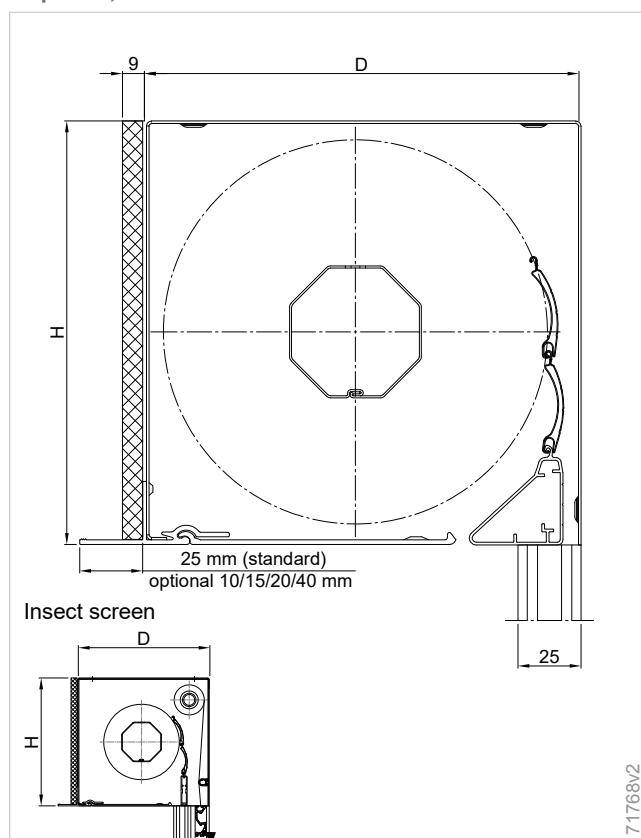
### Detail of plaster base profile extension



### V4 plaster, closed on 3 sides



### V4 plaster, closed on 4 sides



## Additional product information

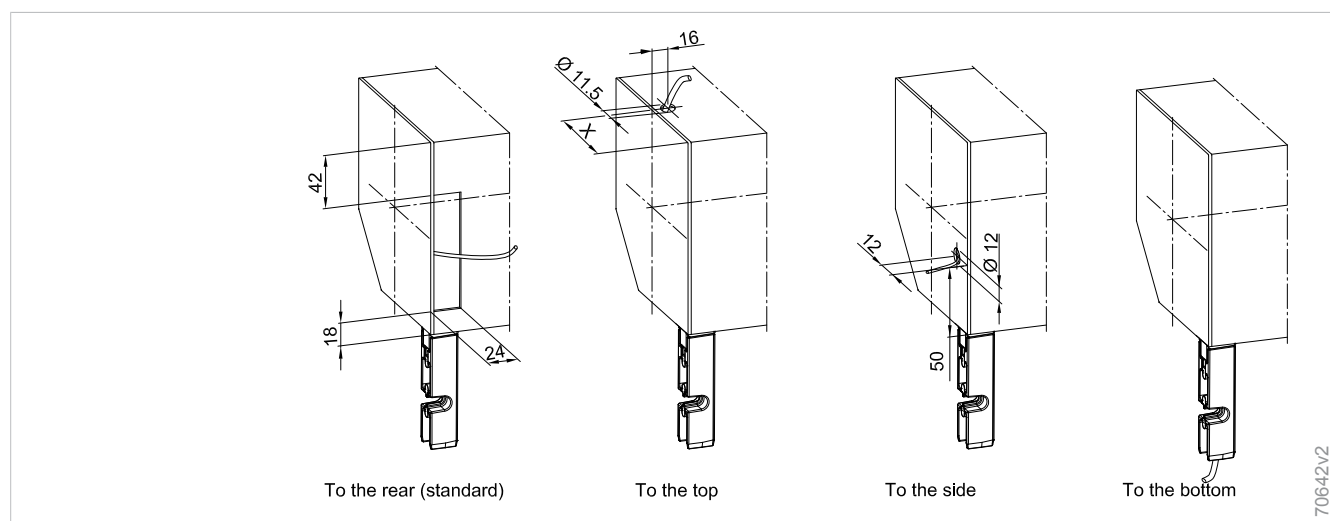
### Drive details, motor

#### Allocation of dimension X

| Box size | Dimension X, box shape E, Q,<br>P | Dimension X, box shape R |
|----------|-----------------------------------|--------------------------|
| 130      | 67                                | -                        |
| 150      | 77                                | 41                       |
| 170      | 87                                | 84                       |
| 190      | 97                                | 61                       |

**Commissioning:** Front-mounted roller shutters with motor can generally be commissioned with one test cable during installation. A programming cable is required to make further settings for motors with torque overload protection.

#### Motor line outlet





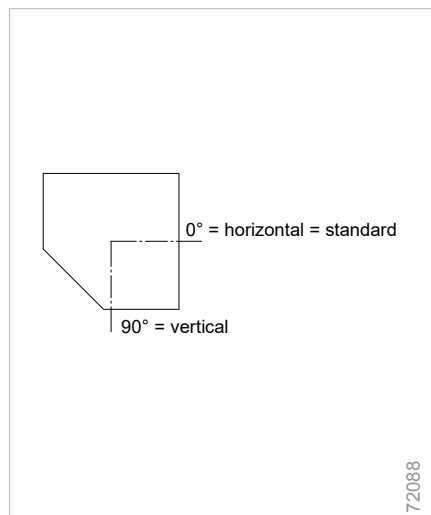
## Drive details, crank

### Outlet angle for crank, allocation of dimension X

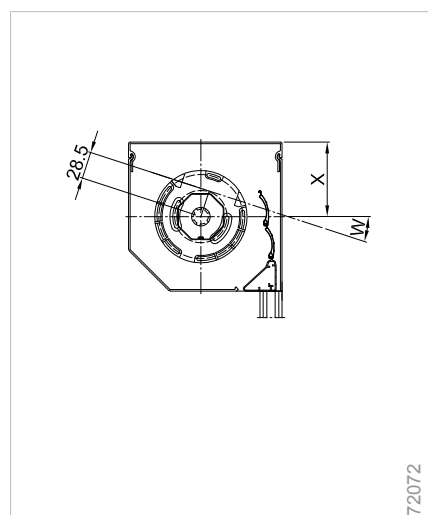
| Box size     | Dimension X for W max. | W min. | W max. |
|--------------|------------------------|--------|--------|
| Crank type 1 |                        |        |        |
| 130          | 90                     | 10°    | 43°    |
| 150          | 110                    | 0°     | 49°    |
| 170          | 129                    | 0°     | 48°    |
| 190          | 148                    | 0°     | 48°    |
| Crank type 2 |                        |        |        |
| 130          | 103                    | 10°    | 29°    |
| 150          | 122                    | 0°     | 32°    |
| 170          | 142                    | 0°     | 33°    |
| 190          | 164                    | 0°     | 35°    |

- **Direct fixing of joint plate on the box** for horizontal drive outlet (= 0°): this product variant must be indicated separately on the order form.

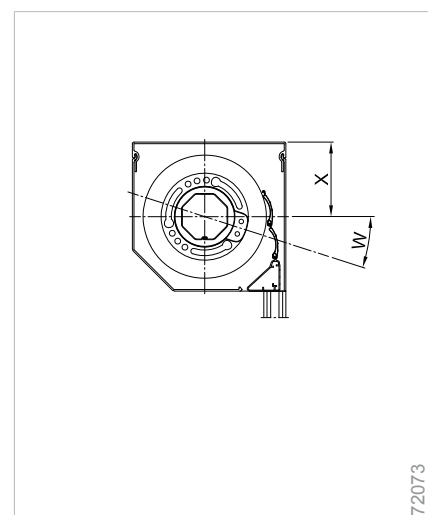
#### Drive outlet for left-rolling blind



#### Outlet angle, crank type 1, left-rolling blind

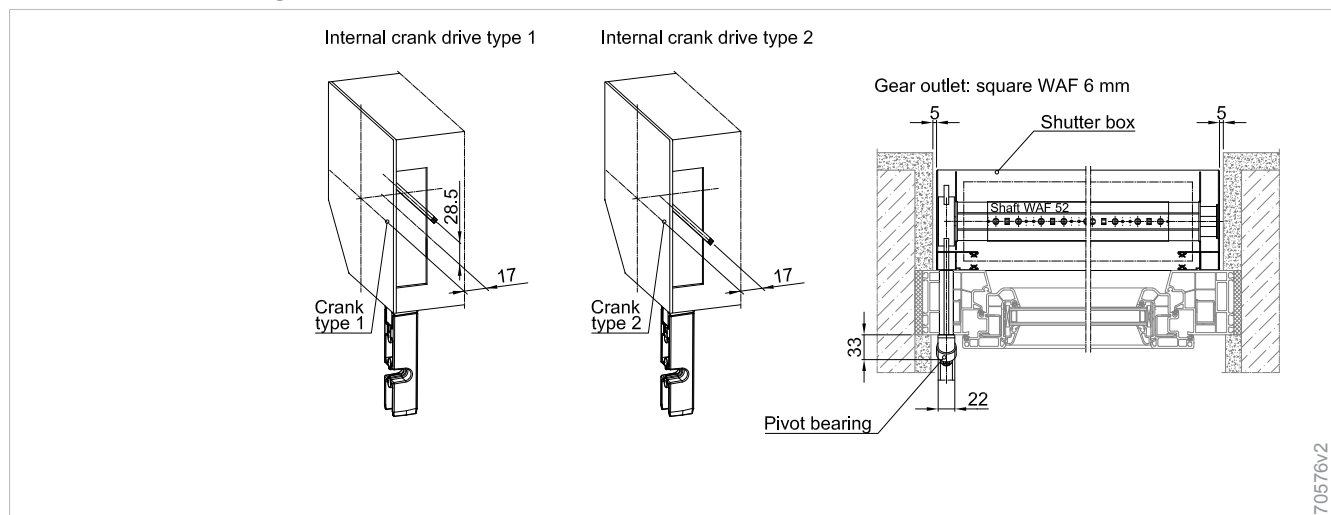


#### Outlet angle, crank type 2, left-rolling blind



Vertical outlet only available from box size 150

#### Crank, internal – left-rolling blind



## Drive details, belt

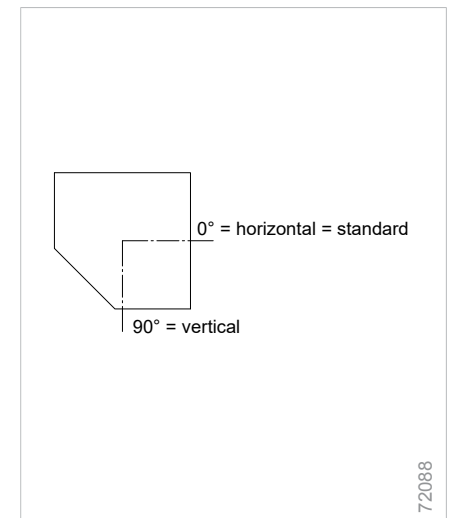
- Horizontal belt outlet = standard model
- Optional vertical belt outlet (possible from box size 150)
- The displayed details also apply for step-up gear 2:1
- Step-up gear 2:1 only possible in combination with large swivel winder

### Allocation of dimension X

| Box size | Dimension X for belt guiding roller, fixed | Dimension X for belt guiding roller, adjustable |
|----------|--------------------------------------------|-------------------------------------------------|
| 130      | 88                                         | 110                                             |
| 150      | 108                                        | 130                                             |
| 170      | 128                                        | 150                                             |
| 190      | 148                                        | 170                                             |

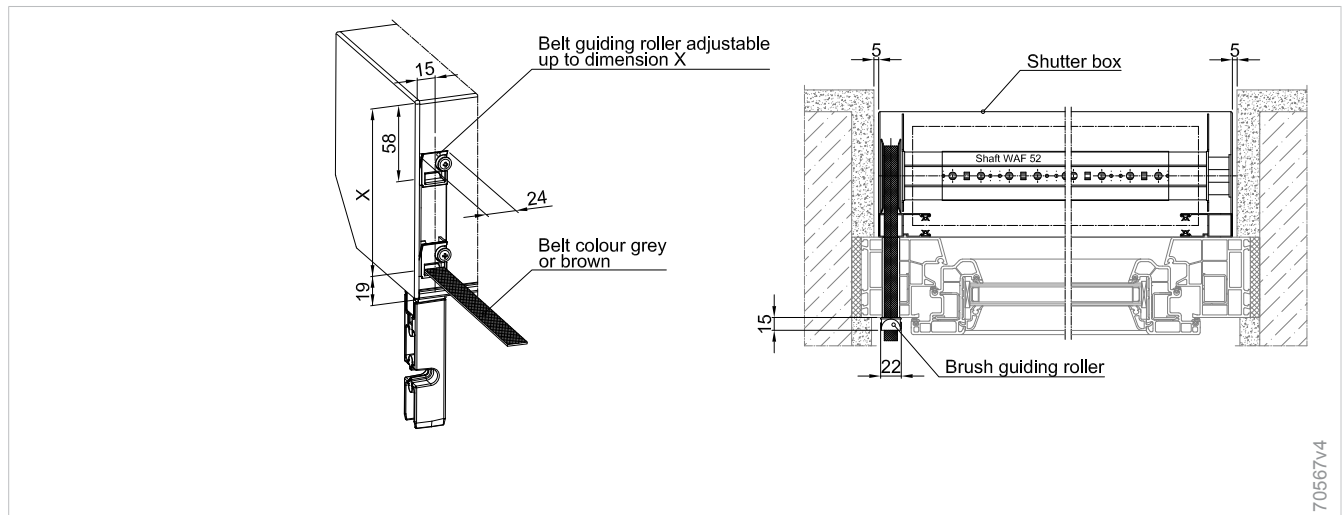
For V4 with internal belt, the belt guiding roller is fixed as standard and optionally adjustable.

### Drive outlet for left-rolling blind

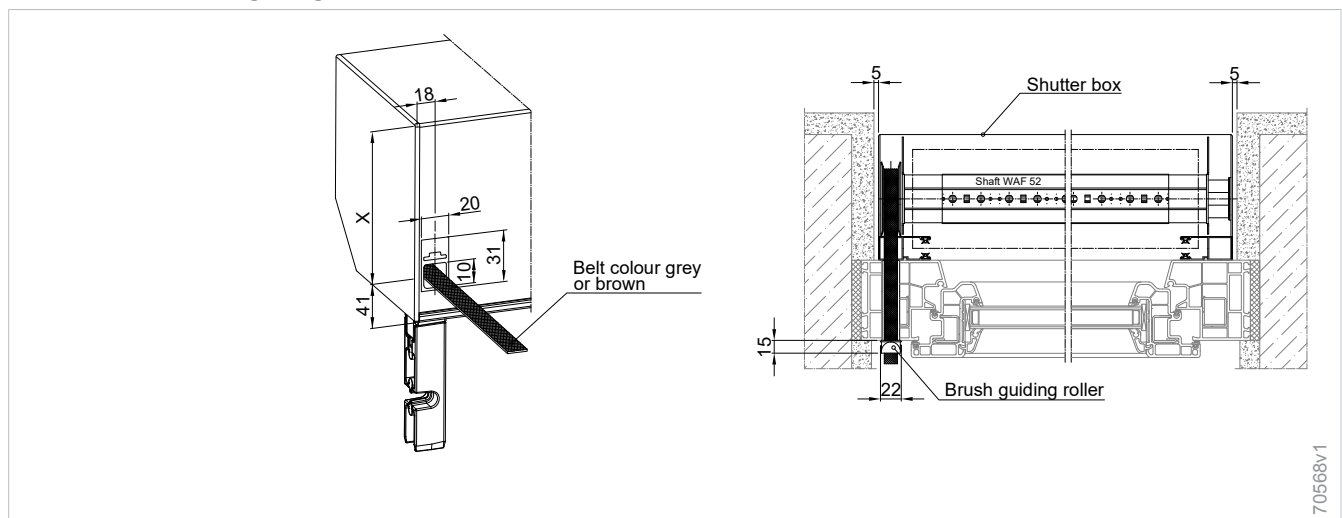


Vertical outlet only available from box size 150

### Belt, internal, adjustable belt guiding roller



### Belt, internal, fixed belt guiding roller



## Group units

Multi-part roller shutters with continuous boxes and individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** always seen from inside, from left to right
- **Beginning and end position:** please indicate on order form
  - 2-part units: beginning position – end position
  - 3-part units: beginning position – middle position – end position

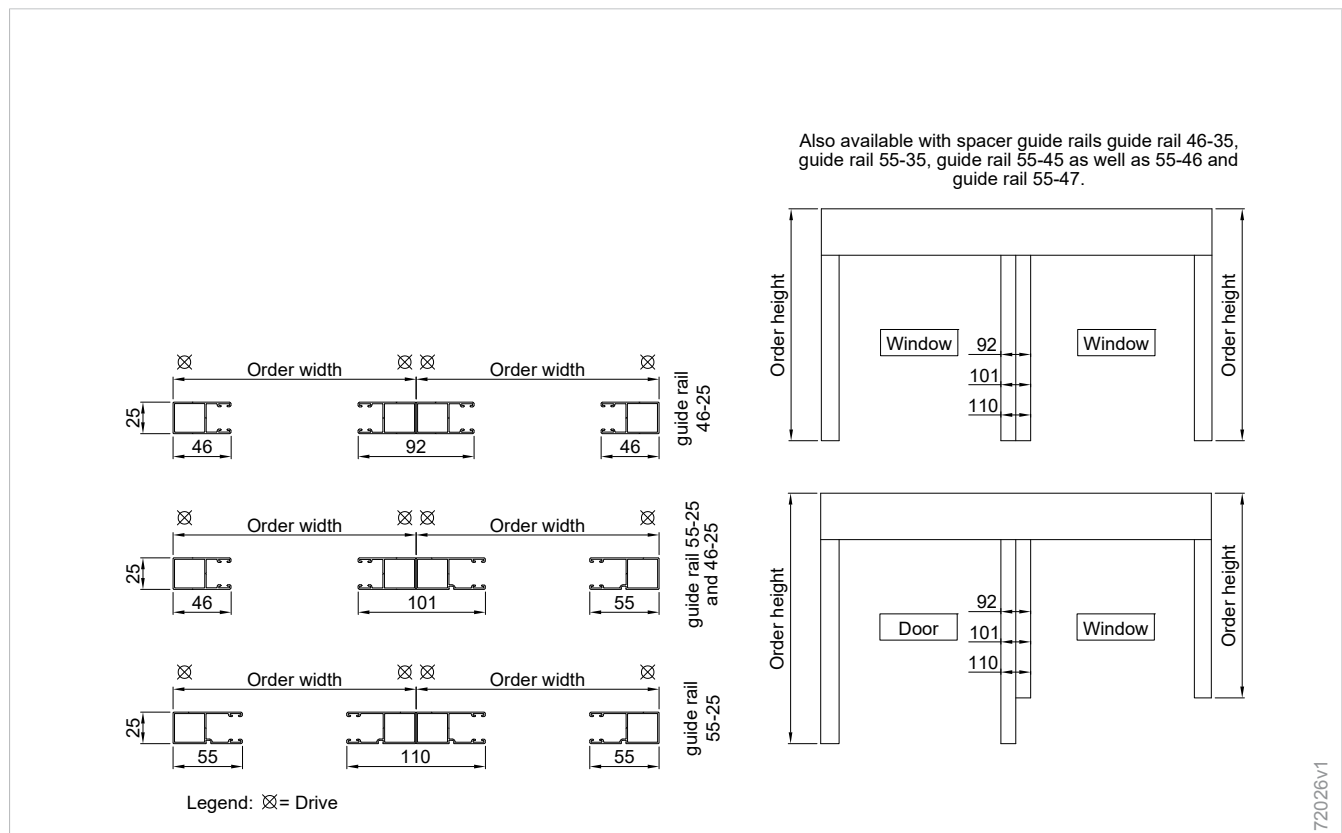
### Maximum box widths for V4 continuous boxes

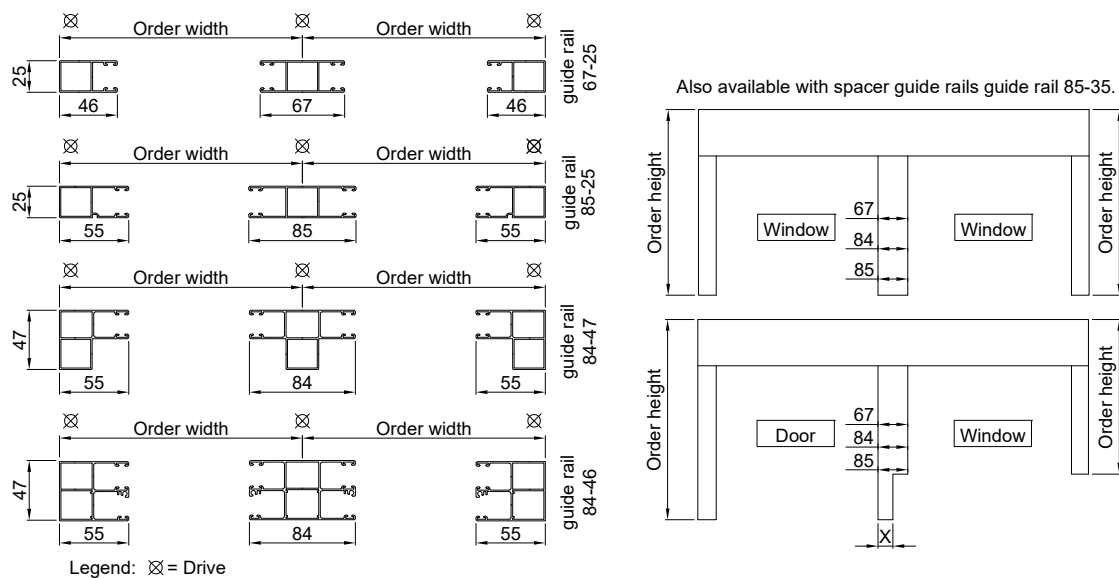
| Box shape   | Box closed on 3 sides | Box closed on 4 sides |
|-------------|-----------------------|-----------------------|
| Rectangular | Not possible          | 3000 mm               |
| Square      | Not possible          | 3000 mm               |
| Round       | Not possible          | 3000 mm               |
| Plaster     | 3000 mm               | 4000 mm               |

#### Notes on coupled roller shutters:

- A maximum of 3 individual roller shutters can be coupled within a continuous box. Please observe the maximum drive areas.
- For coupled roller shutter curtains, obstacle detection when lowering is not active for technical reasons!
- A central drive is not possible for coupled roller shutter curtains.

### Order data for group units with middle rail sizes 92, 101 and 110





72027v2

A maximum of 1 drive can be positioned in the middle of size 67, 85 and 84 middle rails.

### Additional box fastening

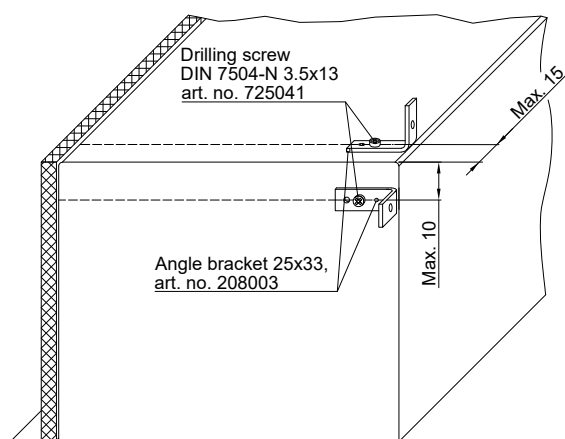
- We recommend additional box fastening using mounting brackets for order widths over 1500 mm.
- These angle brackets are supplied as standard for models with plaster pieces or for box shape Plaster.

**Scope of delivery:**

- Angle bracket 25x33
- Per angle bracket: 2 drilling screws DIN 7504-3.5x13

- The fixing brackets can alternatively be positioned at the top or at the side.
- Do not use any screws longer than the ones supplied in the scope of delivery.
- The maximum distances (10 and 15 mm) must be observed.
- The angle bracket can also be turned and moved along the lines shown
- Drilled hole for on-site installation 4,2 mm

### Additional box fastening positioning



70209v1

## Integrated insect screen roller blind (optional)

### Construction limit values with integrated insect screen roller blind

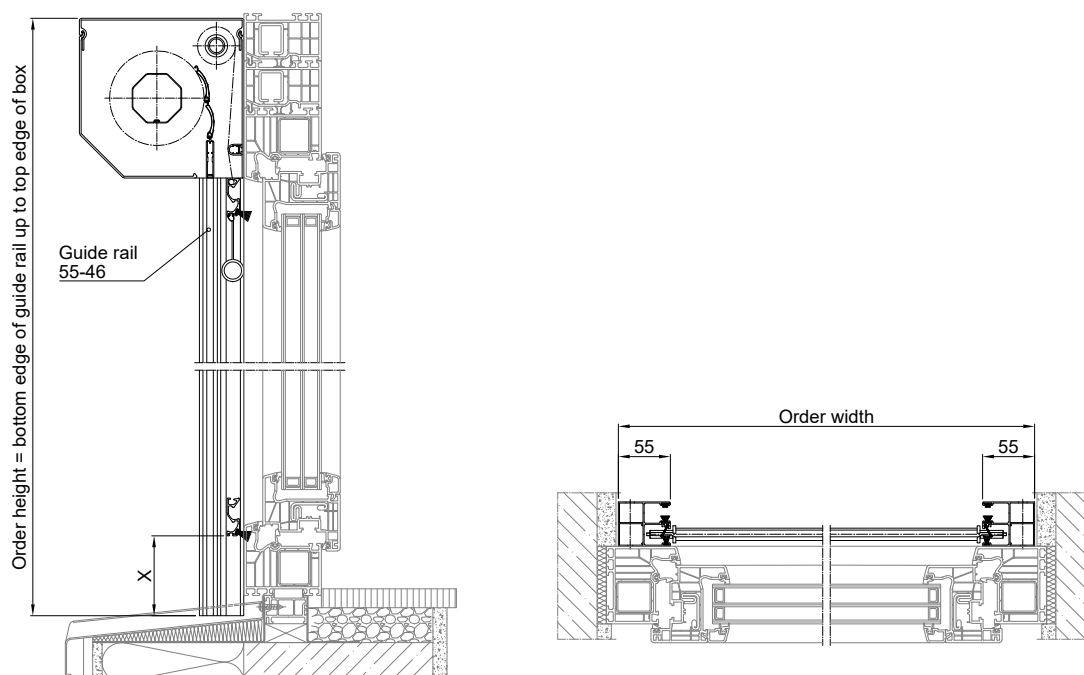
| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 710 mm        | 2000 mm       | -              | 2250 mm        | 4.5 m <sup>2</sup> |

#### Type-dependent limitations:

- An insect screen roller blind can only be used with a box size of 170 or greater.
- A 53 not possible in connection with insect screen roller blind.

**Drawings for front-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.**

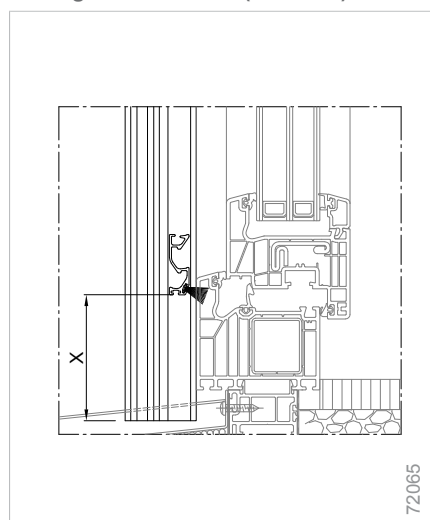
### Front-mounted roller shutter with integrated insect screen roller blind (based on example of V6)



The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

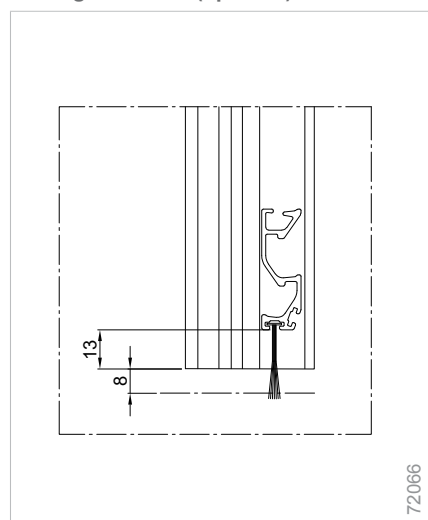
70561v5

#### Sealing 90° to window (standard)



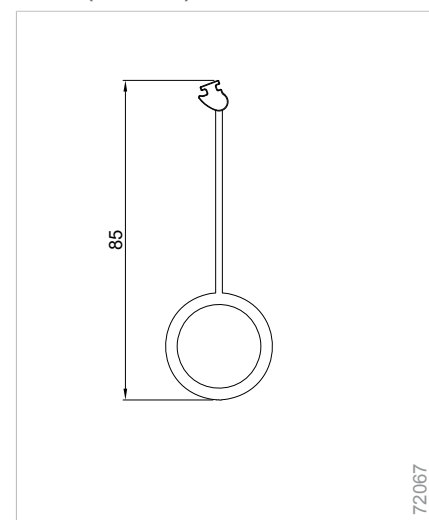
72065

#### Sealing to bottom (optional)



72066

#### Tassel (standard)

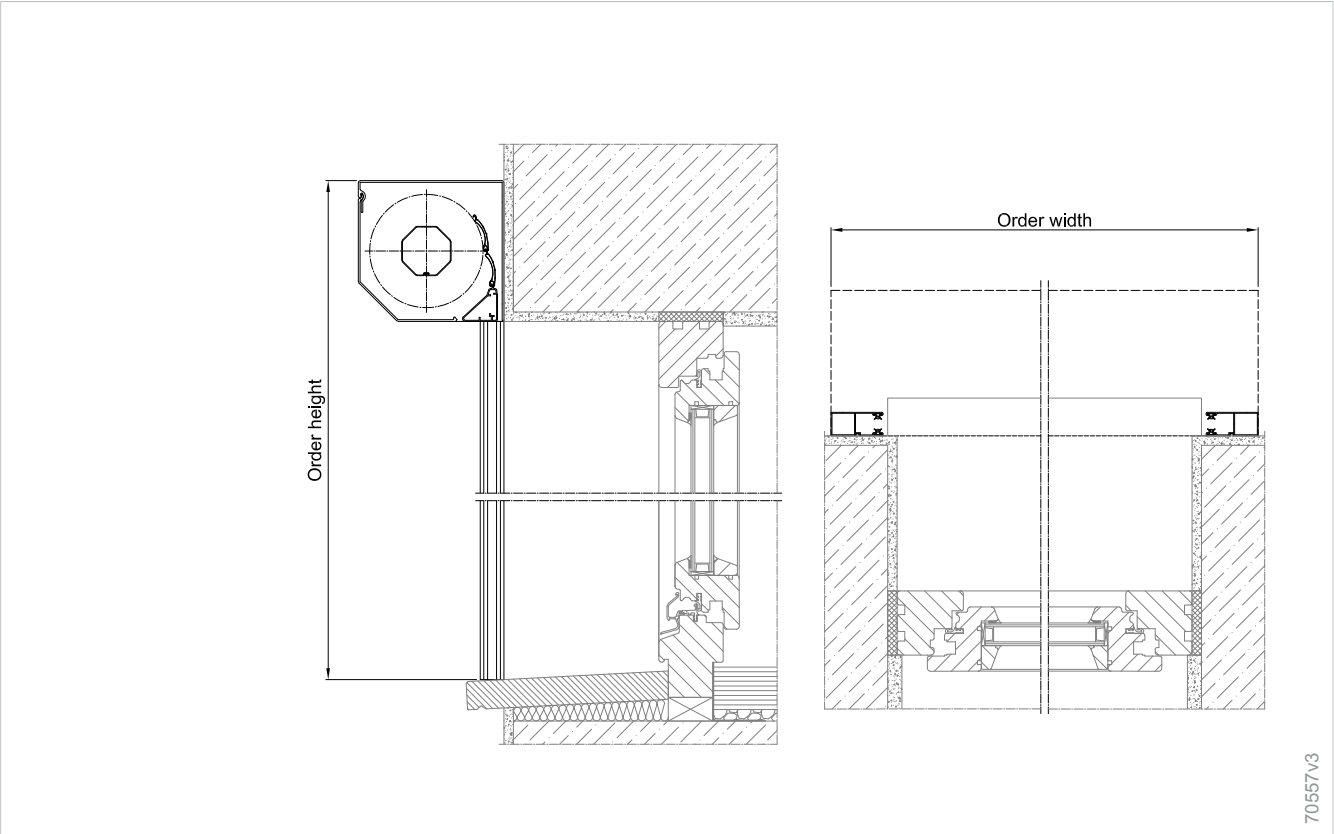


72067

➕ see "Integrated insect screen", Page 246

# Mounting examples

## Installation on the reveal, rectangular box shape



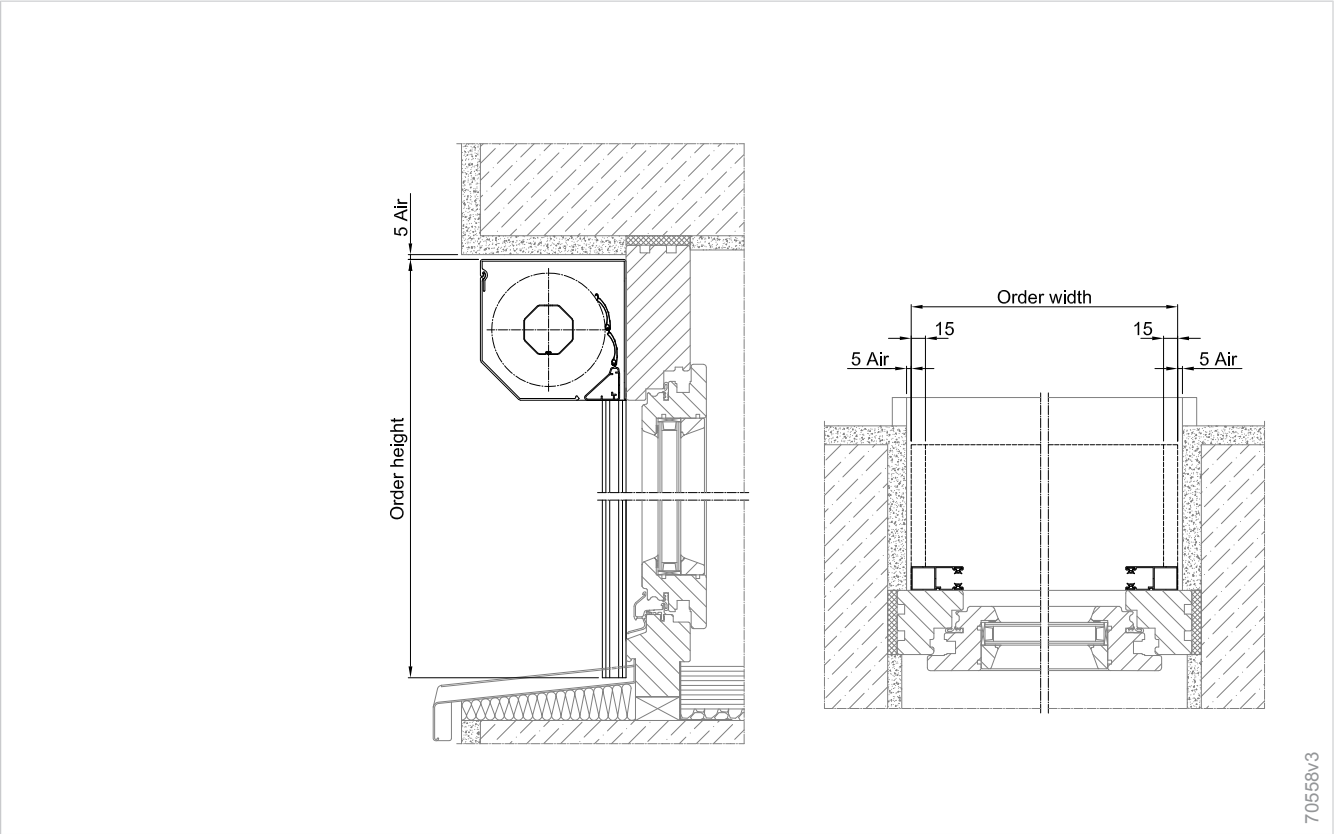
Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

## Installation in the reveal, rectangular box shape



Supplementary accessories

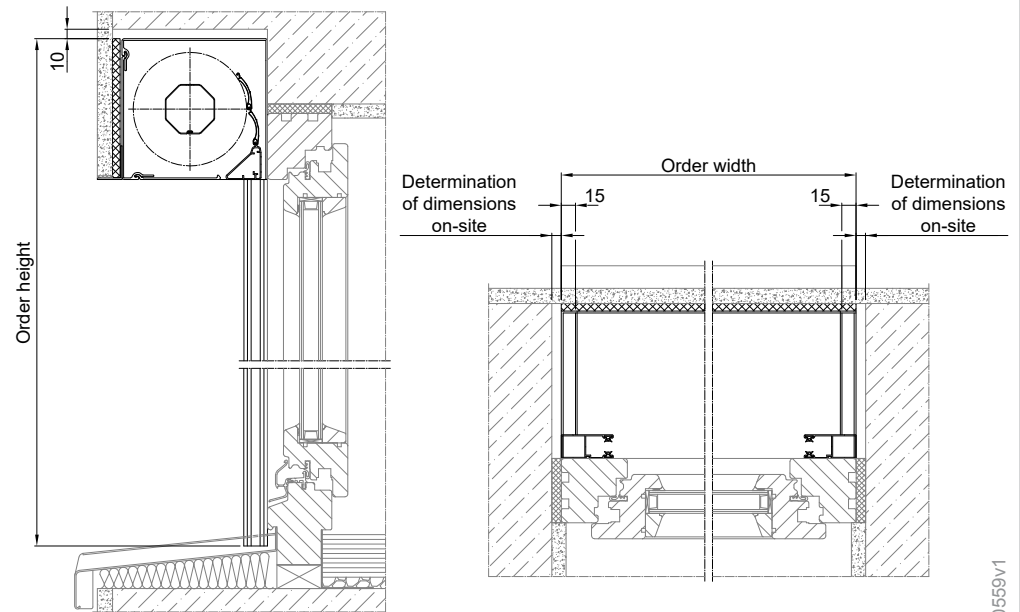
Components

Drive variants

Standards



## Installation in the reveal, plaster box shape



## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Front-mounted roller shutters  
<https://docs.warema.com/1.1313.9>







## Front-mounted roller shutters

### Front-mounted roller shutters V6

#### All-rounder

Versatile, meaning it can be used regardless of the building design - for retrofitting as well as renovations or new buildings.

#### Efficient

Thermal bridges are prevented and energy is thus saved thanks to the external box.

#### Variety

Over 200 attractive colours for powder-coated aluminium parts, various optional insect protection solutions and numerous supplementary accessories.



#### Construction limit values

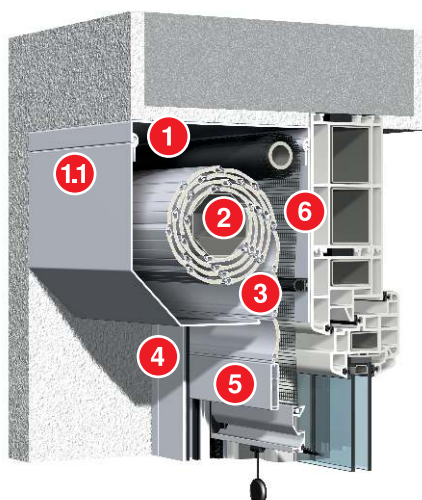
|                                   |                     |
|-----------------------------------|---------------------|
| Maximum order width               | 3500 mm             |
| Maximum order height              | 3500 mm             |
| Maximum order area                | 10.0 m <sup>2</sup> |
| Maximum order width of group unit | 6000 mm             |



#### Product characteristics

- Extruded box
- Triangular design end rail, standard feature
- Insect screen, optional

## Components



|     |                        |   |                                       |
|-----|------------------------|---|---------------------------------------|
| 1   | Box                    | 4 | Lateral guidance                      |
| 1.1 | Inspection cover       | 5 | Bottom rail                           |
| 2   | Shaft                  | 6 | Insect screen roller blind (optional) |
| 3   | Roller shutter curtain |   |                                       |

### Box

#### Box shape V6 Rectangular

|                         |                                          |
|-------------------------|------------------------------------------|
| Material                | Aluminium, extruded                      |
| Surface                 | Powder-coated, Anodised natural colour   |
| Optional surface        | Anodised coloured                        |
| Box sizes               | 130, 150, 170, 190, 210                  |
| Box model               | Closed on 3 sides                        |
| Box model, optional     | Closed on 4 sides                        |
| Unwinding direction     | Left-rolling blind, Right-rolling blind  |
| Plaster piece, optional | Plaster piece 12 mm, Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

+ see "Box shape V6, rectangular", Page 58

#### Box shape V6 Square

|                         |                                          |
|-------------------------|------------------------------------------|
| Material                | Aluminium, extruded                      |
| Surface                 | Powder-coated, Anodised natural colour   |
| Optional surface        | Anodised coloured                        |
| Box sizes               | 130, 150, 170, 190, 210                  |
| Box model               | Closed on 3 sides                        |
| Box model, optional     | Closed on 4 sides                        |
| Unwinding direction     | Left-rolling blind, Right-rolling blind  |
| Plaster piece, optional | Plaster piece 12 mm, Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

+ see "Box shape V6, square", Page 59

#### Box shape V6 Round

|                         |                                          |
|-------------------------|------------------------------------------|
| Material                | Aluminium, extruded                      |
| Surface                 | Powder-coated, Anodised natural colour   |
| Optional surface        | Anodised coloured                        |
| Box sizes               | 150, 170, 190, 210                       |
| Box model               | Closed on 3 sides                        |
| Box model, optional     | Closed on 4 sides                        |
| Unwinding direction     | Left-rolling blind                       |
| Plaster piece, optional | Plaster piece 12 mm, Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

+ see "Box shape V6, round", Page 59

##### Box shape V6 Plaster (optional)

|                         |                                        |
|-------------------------|----------------------------------------|
| Material                | Aluminium, extruded                    |
| Surface                 | Powder-coated, Anodised natural colour |
| Optional surface        | Anodised coloured                      |
| Box sizes               | 130, 150, 170, 190, 210                |
| Box model               | Closed on 3 sides                      |
| Box model, optional     | Closed on 4 sides                      |
| Unwinding direction     | Left-rolling blind                     |
| Plaster piece           | Plaster piece 12 mm                    |
| Plaster piece, optional | Plaster piece 26 mm                    |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. The angle brackets are supplied as standard for box shape Plaster.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

#### + Plaster base profile

##### 25 mm projection

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| Material        | Aluminium, extruded                                        |
| Surface         | Powder-coated                                              |
| Material, notes | Plaster base profile and plaster pieces are powder-coated. |

- 25 mm projection

Plaster base profile, optional:

- 10 mm projection
- 15 mm projection
- 20 mm projection
- 40 mm projection

+ see "Box shape V6, plaster", Page 60

## Shaft

##### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

## Roller shutter curtain

- A 36
- A 44
- A 53
- K 36

Roller shutter curtain, optional:

- S 37

+ see "Roller shutter curtain", Page 274

## Bottom rail

- Triangular design end rail

End rail, optional:

- Flat end rail

+ see "End rails", Page 322

## Guide variants

- Rail guidance

## Guide rail

- Guide rail 55-25

Guide rail, optional:

- Guide rail 46-25
- Guide rail 55-47
- Guide rail 55-46
- Guide rail 55-35
- Guide rail 55-45
- Guide rail 55-65
- Guide rail 55-75
- Guide rail 80-25
- Guide rail 55-85

+ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

Basic motor, optional:

- WAREMA SecuKit, motor with additional belt operation
- Motor with additional collapsible crank ZHK
- Motor with battery module

### Radio motor, optional

- WMS Radio motor type WMS-RT incl. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RT incl. EWFS Wall-mounted transmitter 1-channel, wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with internal gear

Crank, optional:

- Crank with extendible gear

### Gear

- Crank type 1, crank
- Crank type 2, bevel gear

### Belt

- Belt, 14 mm

Belt, optional:

- Belt, 23 mm (only in connection with box shape plaster and box extension; note limited order height, see Chapter "Drives")
- Belt with extendible belt disc (14 mm belt)
- Belt deflection
- Step-up gear for belt

### Cord, optional

- Internal cord

➤ see "Drive variants", Page 329

## Colours

- WAREMA Colour World
- Anodised C0
- Colours for shutter profiles

Colours, optional:

- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

➤ see "Colours", Page 12

## Insect screen

Insect screen, optional:

- Integrated insect screen roller blind
- Integrated insect screen fixed frame
- Integrated insect screen swivel door
- Integrated insect screen swinging door
- Integrated insect screen pleated blind

➤ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen
- Integrated fall protection VisioNeo
- Minimax guide rails
- Security package
- Quick installation kit
- Integrated lintel insulation
- Guide rails with integrated insulation
- Printed roller shutter curtain
- WAREMA SecuKit
- Motor with additional collapsible crank ZHK
- Battery module UP
- Emergency power supply kit

➤ see "Supplementary accessories", Page 235



## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum box width:** 3000 mm when closed on 3 sides, 6000 mm when closed on 4 sides
- **Maximum width for models with guide rails 46:** max. 1500 mm for K 36; 1800 mm for A 36
- **Model with roller shutter curtain S 37:** couplings or continuous boxes are not possible.
- **Additional box fastening:** recommended with order width of 1500 mm and up
- **Maximum number of single roller shutter curtains within a group unit:** 3
- **Model with integrated insect screen:** exclusively possible in combination with flat end rails

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 6000 mm                           | 18 m <sup>2</sup>                |
| A 44                                                   |                     | 3500 mm             | 2900 mm              | 10 m <sup>2</sup>  | 6000 mm                           | 17 m <sup>2</sup>                |
| A 53                                                   |                     | 3500 mm             | 2600 mm              | 9 m <sup>2</sup>   | 6000 mm                           | 13 m <sup>2</sup>                |
| S 37                                                   |                     | 3000 mm             | 2800 mm              | 7 m <sup>2</sup>   | 3000 mm                           | 7 m <sup>2</sup>                 |
| K 36                                                   |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 6000 mm                           | 9,6 m <sup>2</sup>               |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 640 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 660 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt / Cord                                    | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 710 mm              | 2000 mm             | 2400 mm              | 4,8 m <sup>2</sup> |                                   |                                  |
| Insect screen roller blind without soft-raise function | 530 mm              | 2000 mm             | 2400 mm              | 4,8 m <sup>2</sup> |                                   |                                  |

Construction limit values for a model with further insect screen solutions, such as insect screens for doors, can be found in the TechDataPLUS under additional product information.

## Maximum order area per operating class

| Configuration variants                  | Operating classes |                   |                   |
|-----------------------------------------|-------------------|-------------------|-------------------|
|                                         | Design-related    | Operating class 1 | Operating class 2 |
| Roller shutter curtain + Drive variants |                   |                   |                   |
| A 36 + Motor                            | 18 m²             |                   |                   |
| A 44 + Motor                            | 17 m²             |                   |                   |
| A 53 + Motor                            | 13 m²             |                   |                   |
| S 37 + Motor                            | 7 m²              |                   |                   |
| K 36 + Motor                            | 9,6 m²            |                   |                   |
| A 36 + Crank type 1                     | 5 m²              | 5 m²              | 3 m²              |
| A 44 + Crank type 1                     | 5 m²              | 5 m²              | 2,5 m²            |
| A 53 + Crank type 1                     | 4 m²              | 4 m²              | 2,5 m²            |
| K 36 + Crank type 1                     | 5 m²              | 5 m²              | 2,5 m²            |
| A 36 + Crank type 2                     | 8 m²              | 8 m²              | 5,5 m²            |
| A 44 + Crank type 2                     | 8 m²              | 8 m²              | 4,5 m²            |
| A 53 + Crank type 2                     | 7 m²              | 7 m²              | 4,5 m²            |
| S 37 + Crank type 2                     | 2,9 m²            | 2,9 m²            | 2 m²              |
| K 36 + Crank type 2                     | 8 m²              | 8 m²              | 4,5 m²            |
| A 36 + Crank with extendible gear       | 3 m²              | 3 m²              | 3 m²              |
| A 44 + Crank with extendible gear       | 3 m²              | 3 m²              | 2,5 m²            |
| A 53 + Crank with extendible gear       | 2 m²              | 2 m²              | 2 m²              |
| K 36 + Crank with extendible gear       | 3 m²              | 3 m²              | 2,5 m²            |
| A 36 + Internal belt                    | 4 m²              | 2 m²              | 1 m²              |
| A 44 + Internal belt                    | 4 m²              | 2 m²              | 1 m²              |
| A 53 + Internal belt                    | 3 m²              | 2 m²              | 1 m²              |
| K 36 + Internal belt                    | 4 m²              | 2 m²              | 1 m²              |
| A 36 + Extendible belt disc, belt 14 mm | 3 m²              | 2 m²              | 1 m²              |
| A 44 + Extendible belt disc, belt 14 mm | 3 m²              | 2 m²              | 1 m²              |
| A 53 + Extendible belt disc, belt 14 mm | 2 m²              | 2 m²              | 1 m²              |
| K 36 + Extendible belt disc, belt 14 mm | 3 m²              | 2 m²              | 1 m²              |
| A 36 + Belt deflection                  | 3 m²              | 2 m²              | 1 m²              |
| A 44 + Belt deflection                  | 3 m²              | 2 m²              | 1 m²              |
| A 53 + Belt deflection                  | 2 m²              | 2 m²              | 1 m²              |
| K 36 + Belt deflection                  | 3 m²              | 2 m²              | 1 m²              |
| A 36 + Step-up gear for belt            | 8 m²              | 4 m²              | 2 m²              |
| A 44 + Step-up gear for belt            | 7 m²              | 4 m²              | 2 m²              |
| A 53 + Step-up gear for belt            | 6 m²              | 4 m²              | 2 m²              |
| K 36 + Step-up gear for belt            | 7 m²              | 4 m²              | 2 m²              |
| A 36 + Internal cord                    | 2 m²              | 1 m²              | 0,5 m²            |
| A 44 + Internal cord                    | 1,5 m²            | 1 m²              | 0,5 m²            |
| A 53 + Internal cord                    | 1,5 m²            | 1 m²              | 0,5 m²            |
| K 36 + Internal cord                    | 1,5 m²            | 1 m²              | 0,5 m²            |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order height per box size

| Configuration variants                        | Box sizes |         |         |         |         |
|-----------------------------------------------|-----------|---------|---------|---------|---------|
|                                               | 130       | 150     | 170     | 190     | 210     |
| <b>Roller shutter curtain</b>                 |           |         |         |         |         |
| A 36                                          | 1400 mm   | 1900 mm | 2750 mm | 3250 mm | 3500 mm |
| A 44                                          | 650 mm    | 1100 mm | 1700 mm | 2350 mm | 2900 mm |
| A 53                                          | 550 mm    | 900 mm  | 1300 mm | 2000 mm | 2600 mm |
| S 37                                          | 1100 mm   | 1700 mm | 2200 mm | 2800 mm | 2800 mm |
| K 36                                          | 1400 mm   | 1900 mm | 2650 mm | 3000 mm | 3000 mm |
| <b>Roller shutter curtain + Guide rail</b>    |           |         |         |         |         |
| A 36 + Guide rail 55-47                       |           | 1600 mm | 2750 mm | 3250 mm | 3500 mm |
| K 36 + Guide rail 55-47                       |           | 1600 mm | 2650 mm | 3000 mm | 3000 mm |
| <b>Roller shutter curtain + Insect screen</b> |           |         |         |         |         |
| A 36 + Integrated insect screen roller blind  |           |         | 1550 mm | 2250 mm | 2400 mm |
| K 36 + Integrated insect screen roller blind  |           |         | 1550 mm | 2250 mm | 2400 mm |

Insect screen roller blind only available from box size 170.

## Maximum order width per wind resistance class

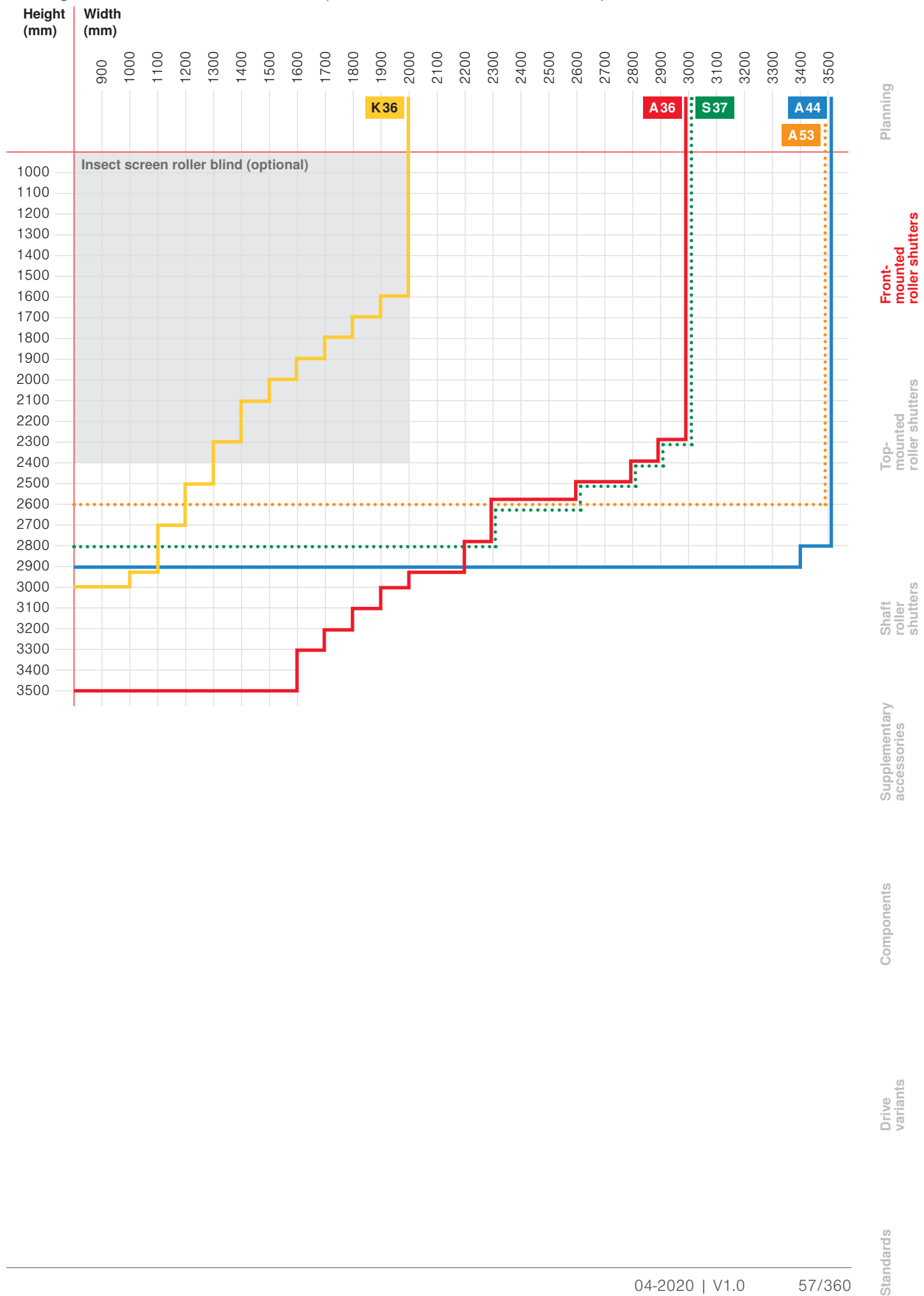
| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2780 mm | 2705 mm | 2560 mm | 2265 mm | 1825 mm | 1500 mm |
| A 44                          | 3500 mm               | 3295 mm | 3200 mm | 3010 mm | 2625 mm | 2055 mm | 1600 mm |
| A 53                          |                       |         | 3500 mm | 3370 mm | 3020 mm | 2490 mm | 1790 mm |
| S 37                          |                       |         |         | 3000 mm | 2790 mm | 2375 mm | 1820 mm |
| K 36                          | 2000 mm               | 1750 mm | 1600 mm | 1400 mm | 1200 mm | 1000 mm | 900 mm  |

### Change to wind resistance class for guide rails deviating from the standard:

- For size 46 guide rails, the wind resistance class reduces by one class.
- For guide rails 80-25, the wind resistance class improves by one class.

Wind resistance class 1 generally applies to insect screen roller blinds.

Area diagram for front-mounted roller shutter V6 (maximum dimensions for individual areas)



## Dimension determination

| Reference dimension | Dimension determination                                    |
|---------------------|------------------------------------------------------------|
| Order width         | Back edge of the guide rail to back edge of the guide rail |
| Order height        | Bottom edge of the guide rail to top edge of the box       |
| Box height          | see box dimensions for each box shape                      |
| Box depth           | see box dimensions for each box shape                      |
| Air                 | 5 mm                                                       |

- **Operation side:** seen from inside
- **Box size:** If a box size deviating from the standard (see construction limit values table) is desired, this must be specified with the order.
- **Plaster pieces:** specified if necessary (standard 12 mm plaster pieces included with box shape plaster, otherwise optional)

## Box dimensions

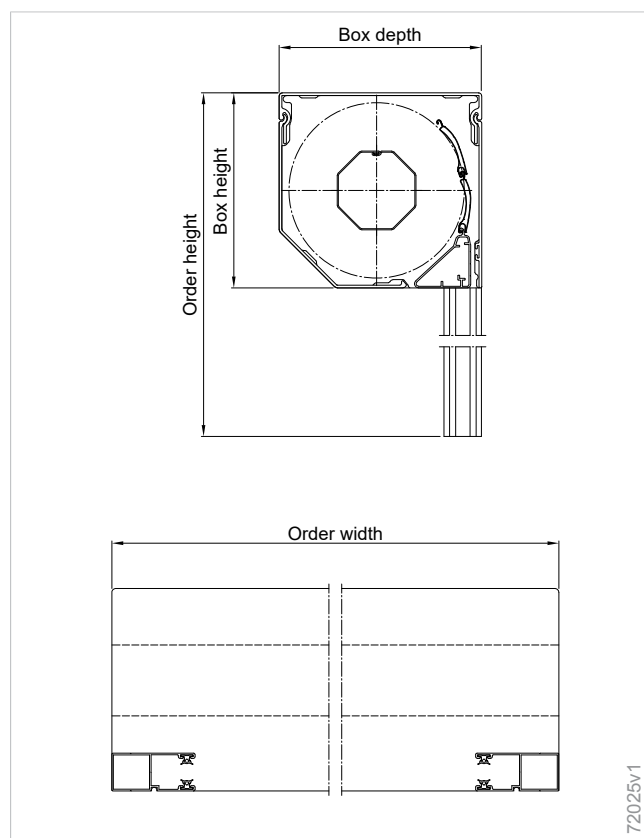
### Box shape V6, rectangular

- Box closed on 3 sides as standard (maximum box width: 3000 mm)
- Box closed on 4 sides optional (maximum box width: 6000 mm)

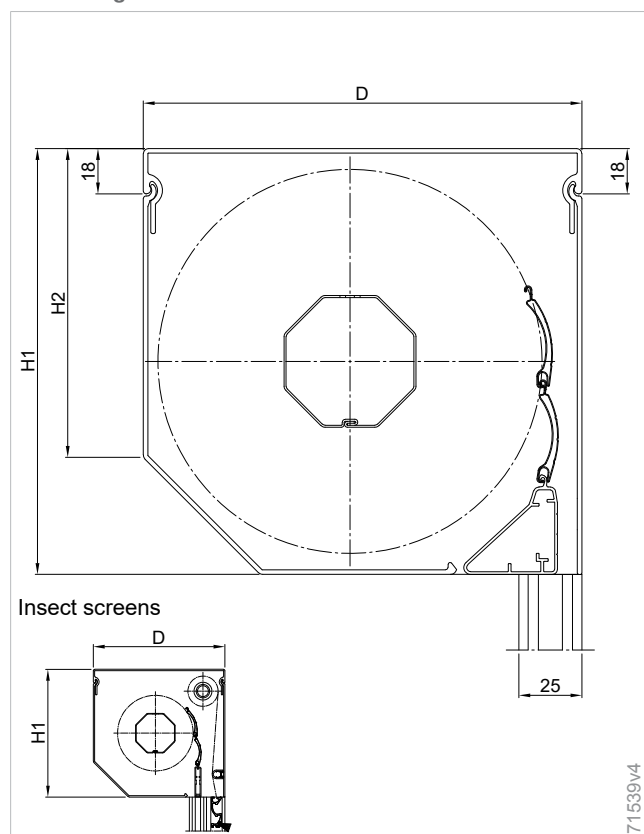
| Box size | Height H1 | Height H2 | Depth D |
|----------|-----------|-----------|---------|
| 130      | 129 mm    | 92 mm     | 134 mm  |
| 150      | 149 mm    | 108 mm    | 154 mm  |
| 170      | 169 mm    | 123 mm    | 174 mm  |
| 190      | 189 mm    | 137 mm    | 194 mm  |
| 210      | 209 mm    | 151 mm    | 214 mm  |

- Boxes closed on 4 sides also available as a right-rolling blind (for inspection, the clearance to other components must be at least box depth)
- Mitre cuts possible only in combination with box closed on 4 sides
- An additional box closure is optionally available when using guide rail 55-47 without the insect screen

### Order dimension determination V6



### V6 Rectangular



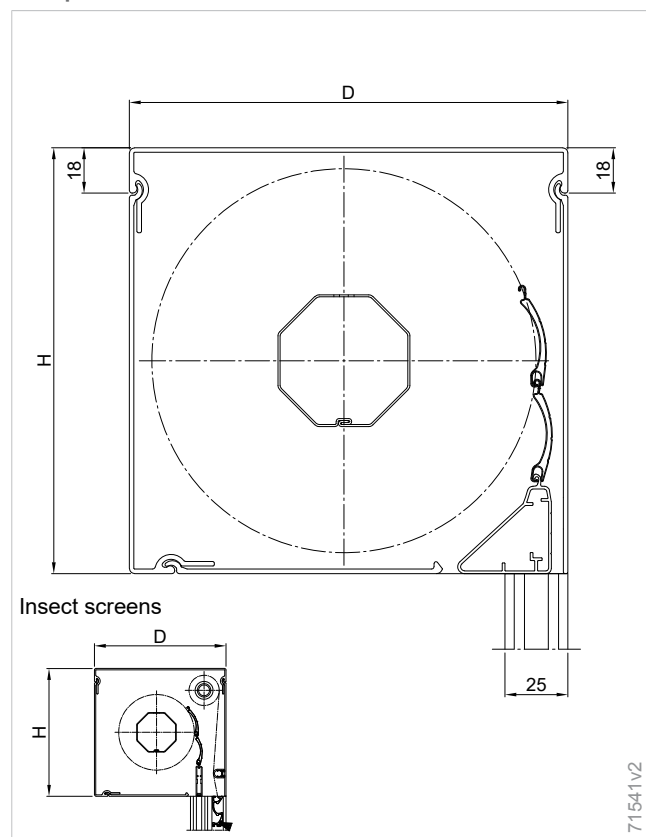
## Box shape V6, square

- Box closed on 3 sides as standard (maximum box width: 3000 mm)
- Box closed on 4 sides optional (maximum box width: 6000 mm)

| Box size | Height H | Depth D |
|----------|----------|---------|
| 130      | 129 mm   | 134 mm  |
| 150      | 149 mm   | 154 mm  |
| 170      | 169 mm   | 174 mm  |
| 190      | 189 mm   | 194 mm  |
| 210*     | 209 mm   | 214 mm  |

- Boxes closed on 4 sides also available as a right-rolling blind (for inspection, the clearance to other components must be at least box depth)
- Mitre cuts possible only in combination with box closed on 4 sides
- An additional box closure is optionally available when using guide rail 55-47 without the insect screen

## V6 Square



Planning

Front-mounted roller shutters

Top-mounted roller shutters

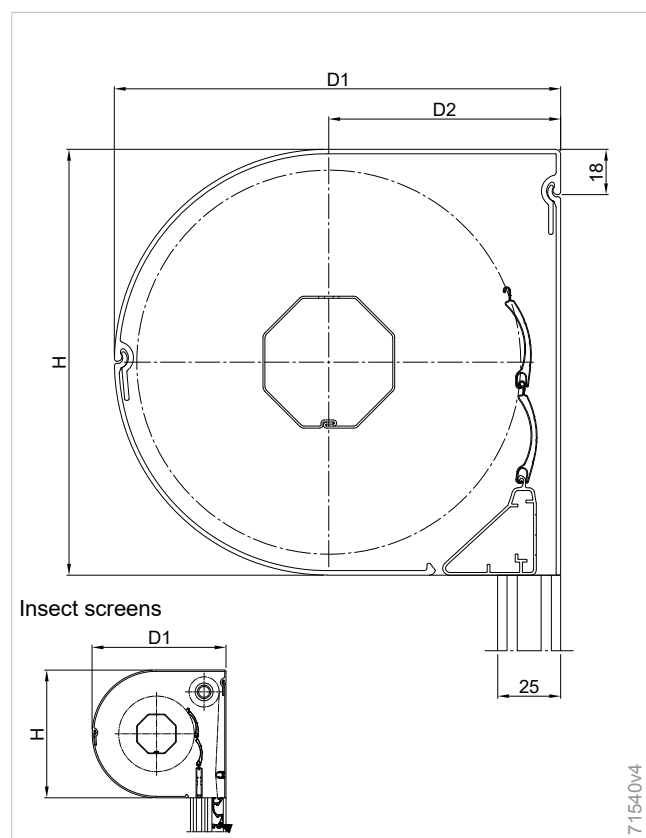
## Box shape V6, round

- Box closed on 3 sides as standard (maximum box width: 3000 mm)
- Box closed on 4 sides optional (maximum box width: 6000 mm)

| Box size | Height H | Depth D1 | Depth D2 |
|----------|----------|----------|----------|
| 130      | -        | -        | -        |
| 150      | 149 mm   | 157 mm   | 80 mm    |
| 170      | 169 mm   | 177 mm   | 90 mm    |
| 190      | 189 mm   | 197 mm   | 100 mm   |
| 210      | 209 mm   | 217 mm   | 110 mm   |

- Round box shape not available as right-rolling blind
- Mitre cuts possible only in combination with box closed on 4 sides
- An additional box closure is optionally available when using guide rail 55-47 without the insect screen

## V6 Round



Shaft roller shutters

Supplementary accessories

Components

Drive variants



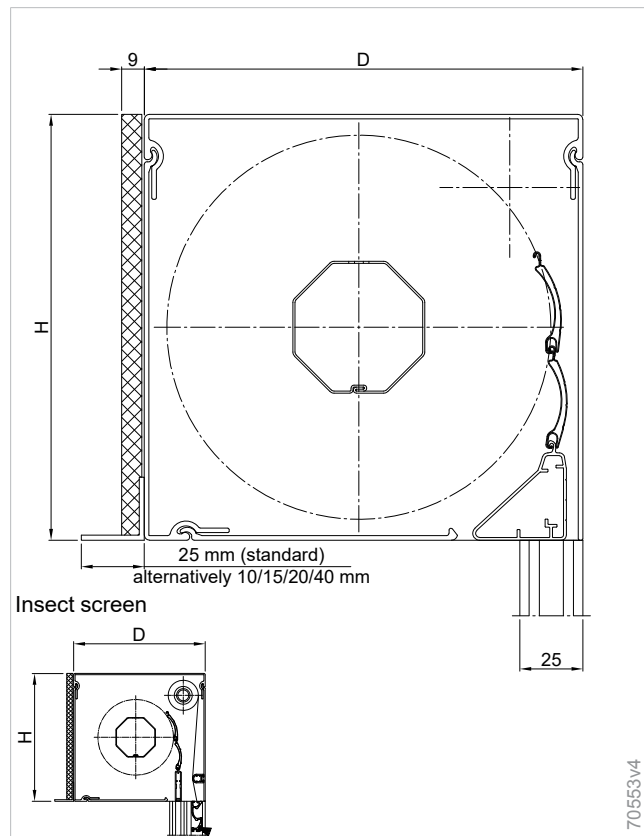
## Box shape V6, plaster

- Box closed on 3 sides as standard (maximum box width: 3000 mm)
- Box closed on 4 sides optional (maximum box width: 6000 mm)
- Box incl. rear side (for boxes closed on 4 sides), powder-coated
- Inspection cover, plaster base profile and plaster pieces powder-coated

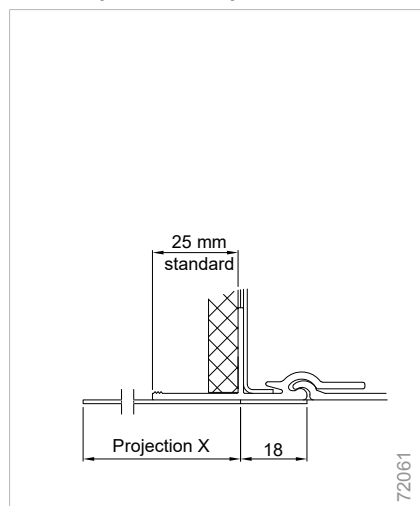
| Box size | Height H | Depth D |
|----------|----------|---------|
| 130      | 129 mm   | 134 mm  |
| 150      | 149 mm   | 154 mm  |
| 170      | 169 mm   | 174 mm  |
| 190      | 189 mm   | 194 mm  |
| 210      | 209 mm   | 214 mm  |

- Plaster base profiles with a projection are available in intermediate sizes upon enquiry.
- The projection of the plaster base profile must be 15 mm for an exterior insulation and finish system (EIFS).
- The plaster base profile is used as a visual closure and is not suitable for bearing loads from the insulation.
- Mitre cuts are possible only in combination with boxes closed on 4 sides.

## V6 plaster



## Detail of plaster base profile extension



## Additional product information

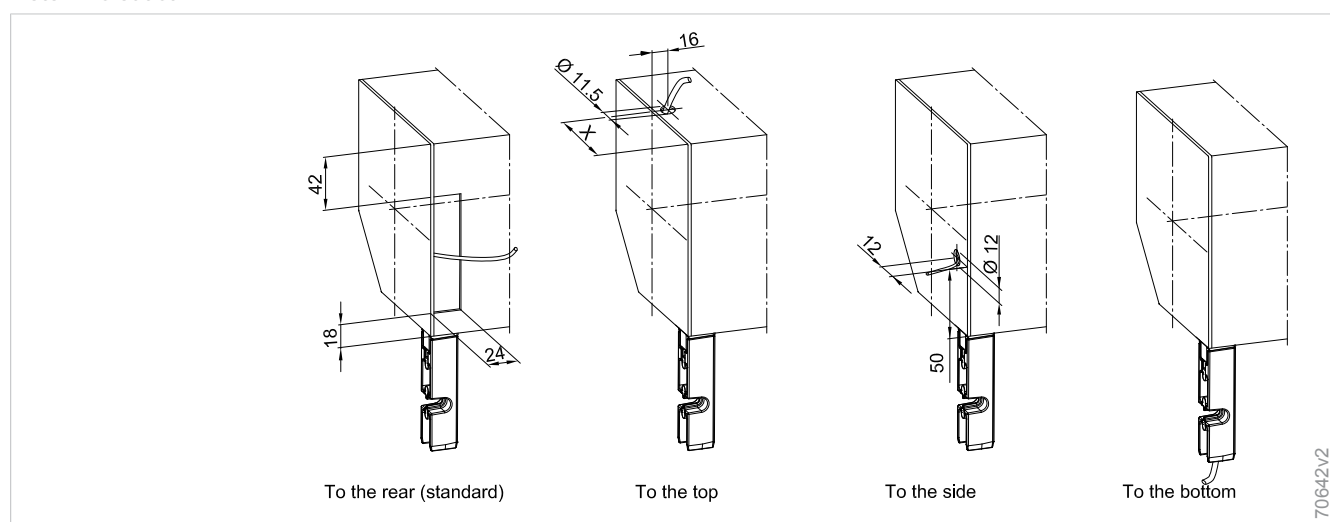
### Drive details, motor

#### Allocation of dimension X

| Box size | Dimension X, box shape E, Q, P | Dimension X, box shape R |
|----------|--------------------------------|--------------------------|
| 130      | 67                             | -                        |
| 150      | 77                             | 41                       |
| 170      | 87                             | 84                       |
| 190      | 97                             | 61                       |
| 210      | 106                            | 71                       |

**Commissioning:** Front-mounted roller shutters with motor can generally be commissioned with one test cable during installation. A programming cable is required to make further settings for motors with torque overload protection.

#### Motor line outlet



## Drive details, crank

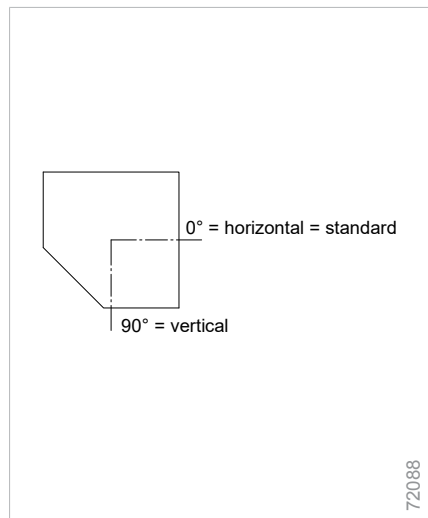
### Outlet angle for crank, allocation of dimension X

| Box size                         | Dimension X for W max. | W min. | W max. |
|----------------------------------|------------------------|--------|--------|
| Crank type 1, left-rolling blind |                        |        |        |
| 130                              | 90                     | 10°    | 43°    |
| 150                              | 110                    | 0°     | 49°    |
| 170                              | 129                    | 0°     | 48°    |
| 190                              | 148                    | 0°     | 48°    |
| 210                              | 168                    | 0°     | 47°    |
| Crank type 2, left-rolling blind |                        |        |        |
| 130                              | 103                    | 10°    | 29°    |
| 150                              | 122                    | 0°     | 32°    |
| 170                              | 142                    | 0°     | 33°    |
| 190                              | 164                    | 0°     | 35°    |
| 210                              | 182                    | 0°     | 36°    |

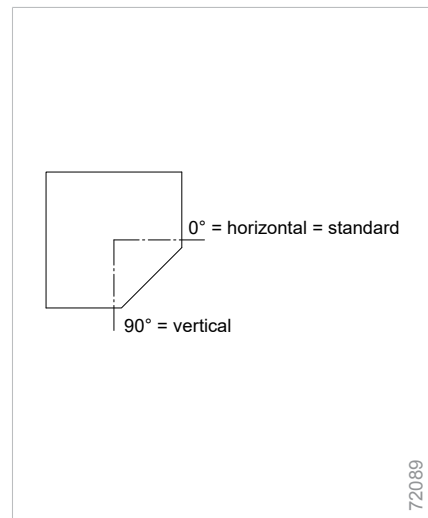
| Box size                          | Dimension X for W max. | W min. | W max. |
|-----------------------------------|------------------------|--------|--------|
| Crank type 1, right-rolling blind |                        |        |        |
| 130                               | 75                     | 10°    | 35°    |
| 150                               | 92                     | 0°     | 35°    |
| 170                               | 109                    | 0°     | 35°    |
| 190                               | 126                    | 0°     | 35°    |
| 210                               | 138                    | 0°     | 33°    |
| Crank type 2, right-rolling blind |                        |        |        |
| 130                               | 75                     | 0°     | 9°     |
| 150                               | 92                     | 0°     | 13°    |
| 170                               | 109                    | 0°     | 16°    |
| 190                               | 126                    | 0°     | 18°    |
| 210                               | 138                    | 0°     | 20°    |

- **Direct fixing of joint plate on the box** for horizontal drive outlet (= 0°): this product variant must be indicated separately on the order form.

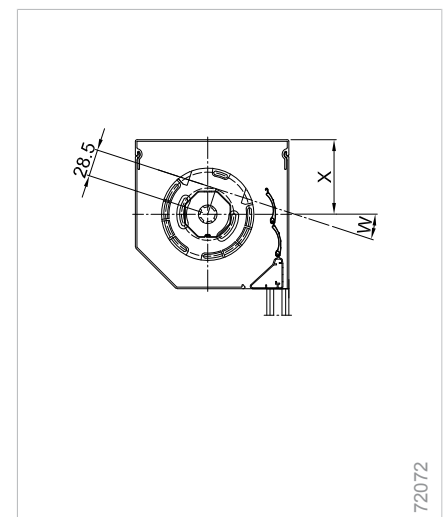
Drive outlet for left-rolling blind



Drive outlet for right-rolling blind

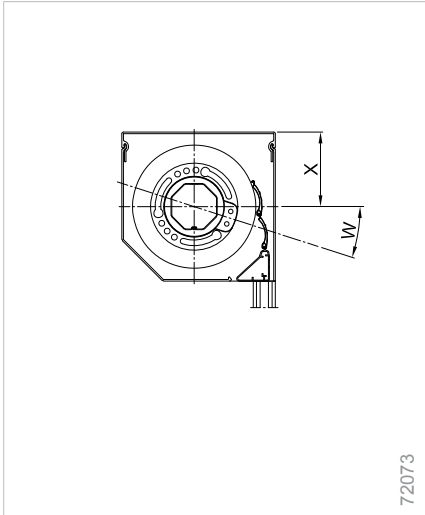


Outlet angle, crank type 1, left-rolling blind

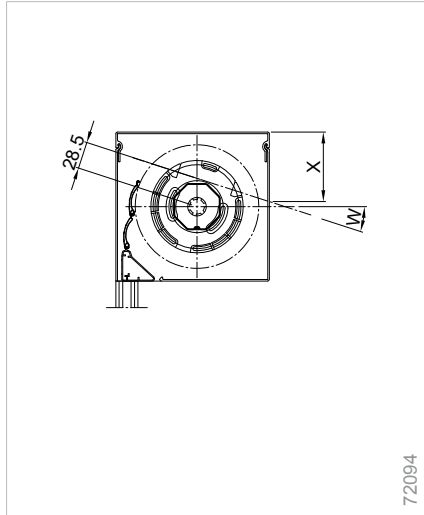


Vertical outlet only available from box size 150

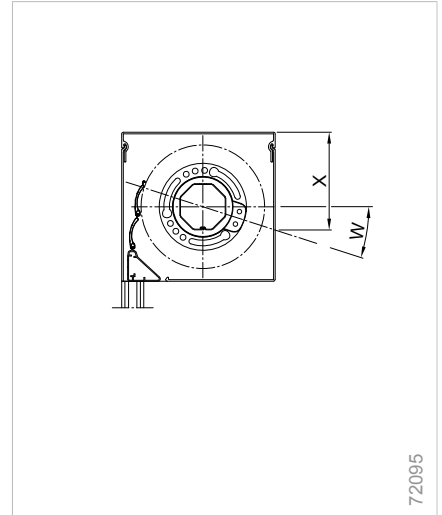
Outlet angle, crank type 2, left-rolling blind



Outlet angle, crank type 1, right-rolling blind



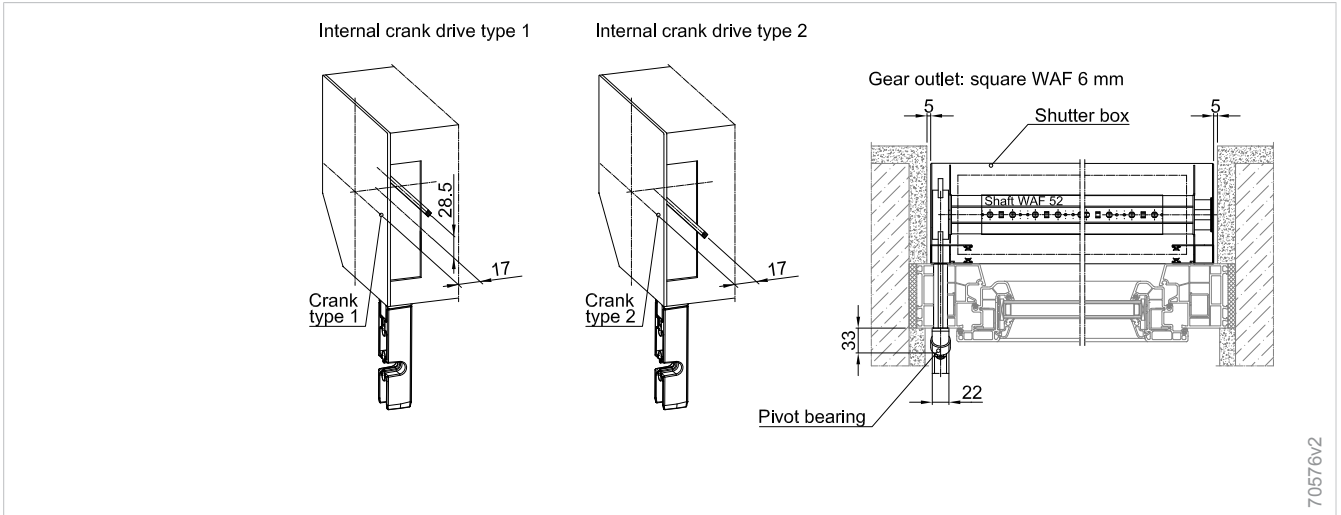
Outlet angle, crank type 2, right-rolling blind



Planning

Front-mounted roller shutters

Crank, internal – left-rolling blind

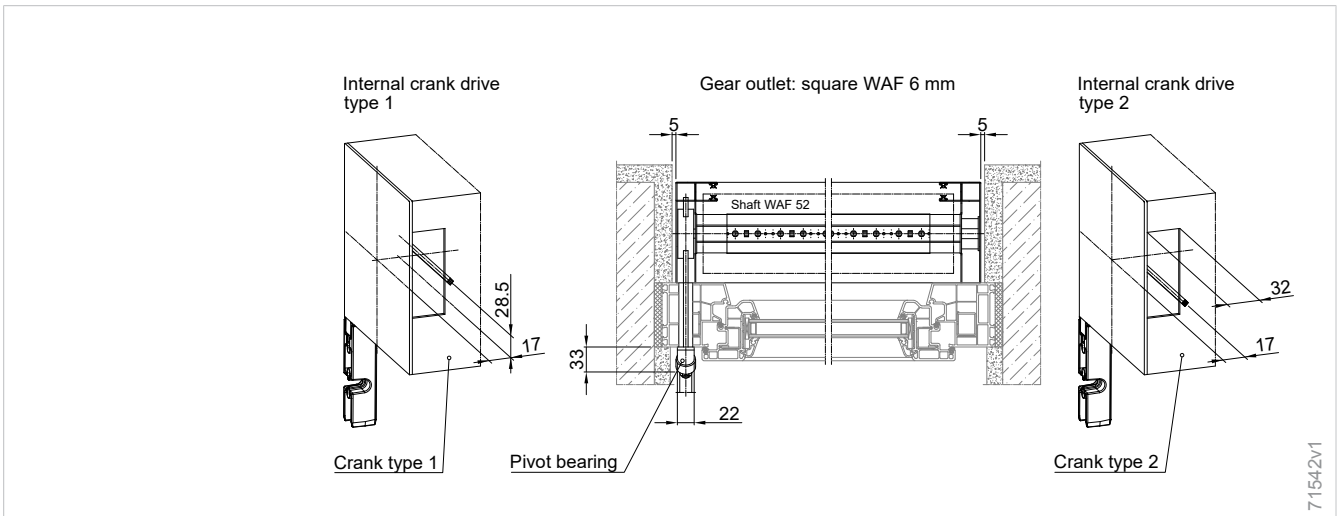


Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Crank, internal – right-rolling blind



Components

Drive variants

Standards

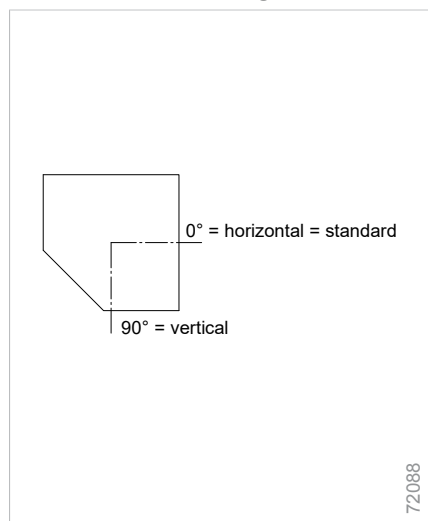
## Drive details, belt

- Horizontal belt outlet = standard model
- Optional vertical belt outlet (possible from box size 150)
- The displayed details also apply for step-up gear 2:1
- Step-up gear 2:1 only possible in combination with large swivel winder

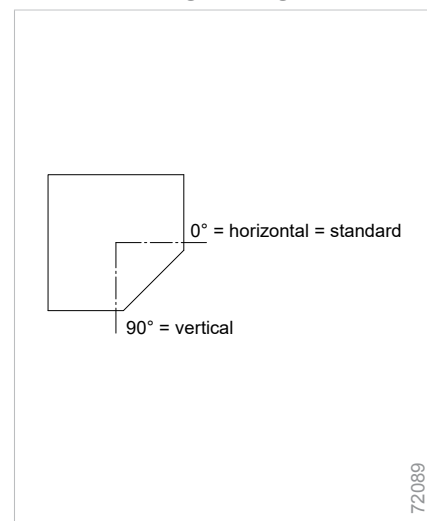
### Allocation of dimension X

| Box size | Dimension X for left-rolling blind with belt guiding roller, adjustable | Dimension X for right-rolling blind with belt guiding roller, adjustable |
|----------|-------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 130      | 110                                                                     | 74                                                                       |
| 150      | 130                                                                     | 94                                                                       |
| 170      | 150                                                                     | 112                                                                      |
| 190      | 170                                                                     | 125                                                                      |
| 210      | 190                                                                     | 139                                                                      |

#### Drive outlet for left-rolling blind

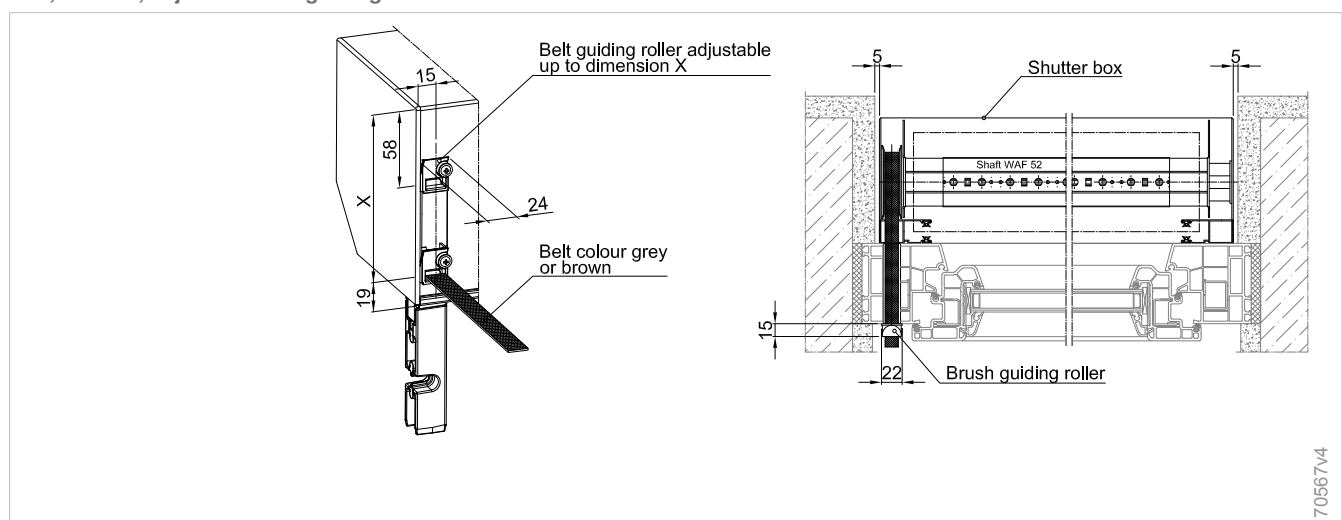


#### Drive outlet for right-rolling blind

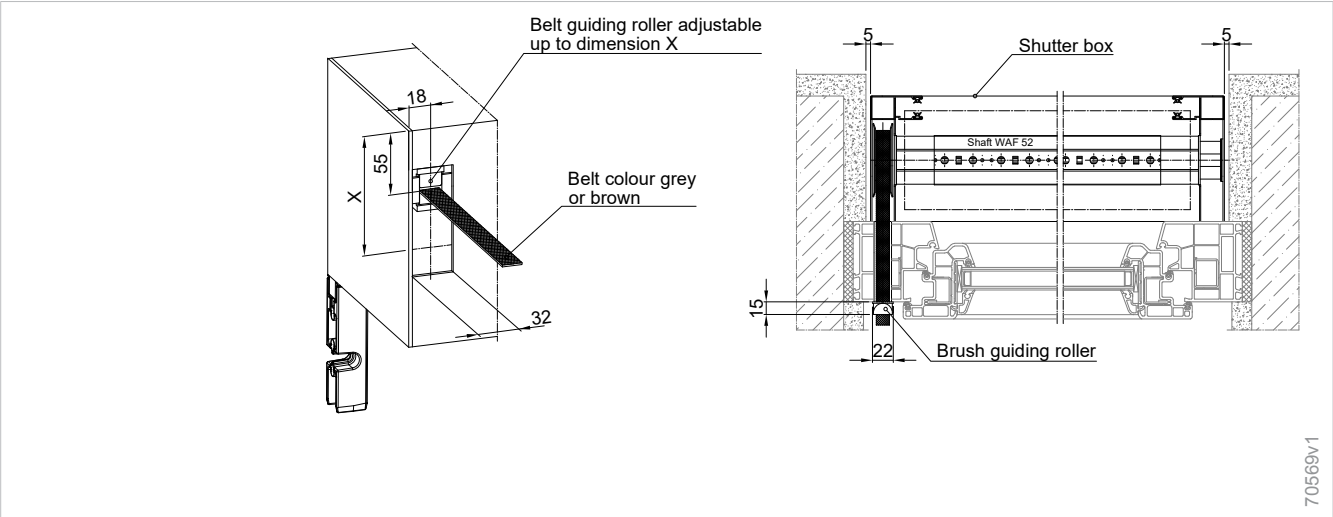


Vertical outlet only available from box size 150

### Belt, internal, adjustable belt guiding roller



Belt, internal for model as right-rolling blind



Group units

Multi-part roller shutters with continuous boxes and individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** always seen from inside, from left to right
- **Beginning and end position:** please indicate on order form
  - 2-part units: beginning position – end position
  - 3-part units: beginning position – middle position – end position

Maximum box widths for V6 continuous boxes

| Box shape   | Box closed on 3 sides | Box closed on 4 sides |
|-------------|-----------------------|-----------------------|
| Rectangular | 3000 mm               | 6000 mm               |
| Square      | 3000 mm               | 6000 mm               |
| Round       | 3000 mm               | 6000 mm               |
| Plaster     | 3000 mm               | 6000 mm               |

**Notes on coupled roller shutters:**

- A maximum of 3 individual roller shutters can be coupled within a continuous box. Please observe the maximum drive areas.
- For coupled roller shutter curtains, obstacle detection when lowering is not active for technical reasons!
- A central drive is not possible for coupled roller shutter curtains.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

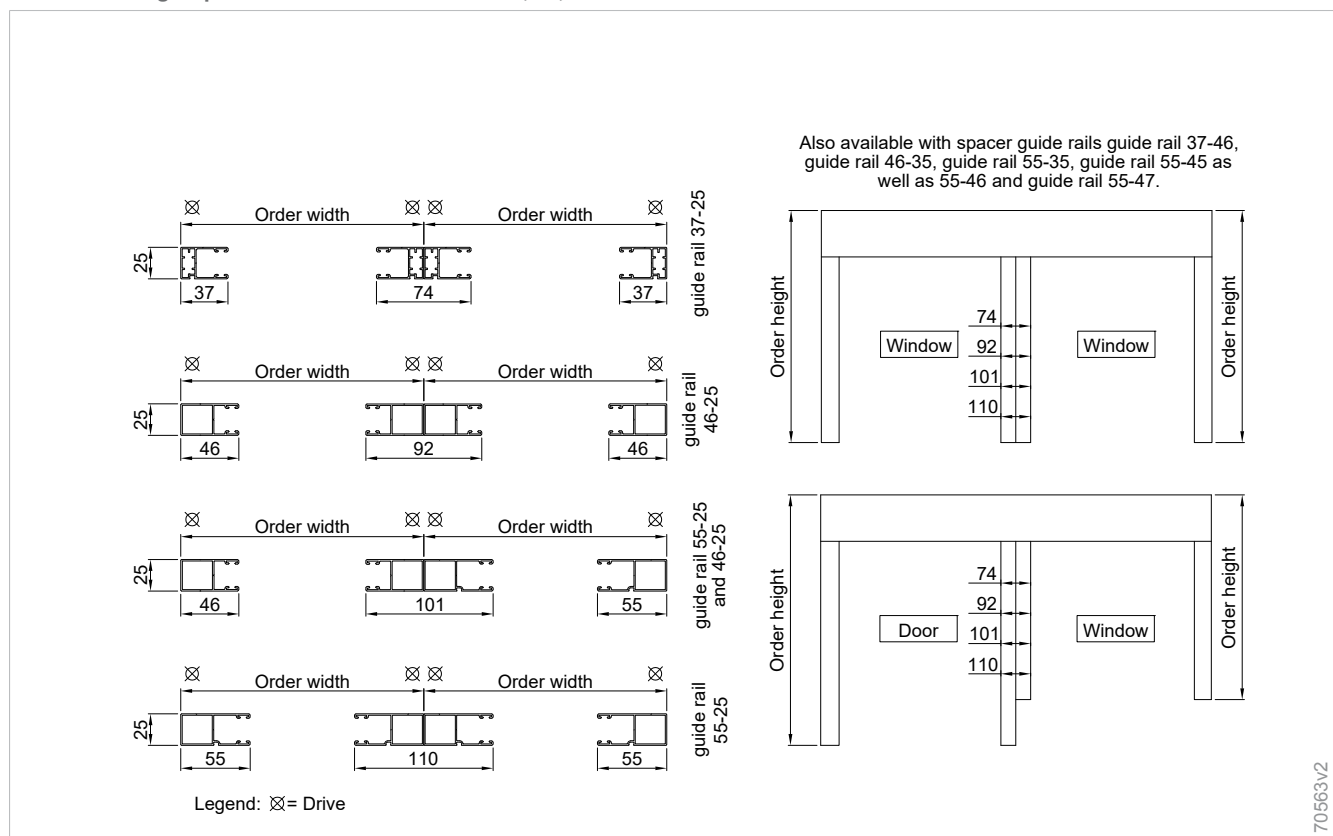
Supplementary accessories

Components

Drive variants

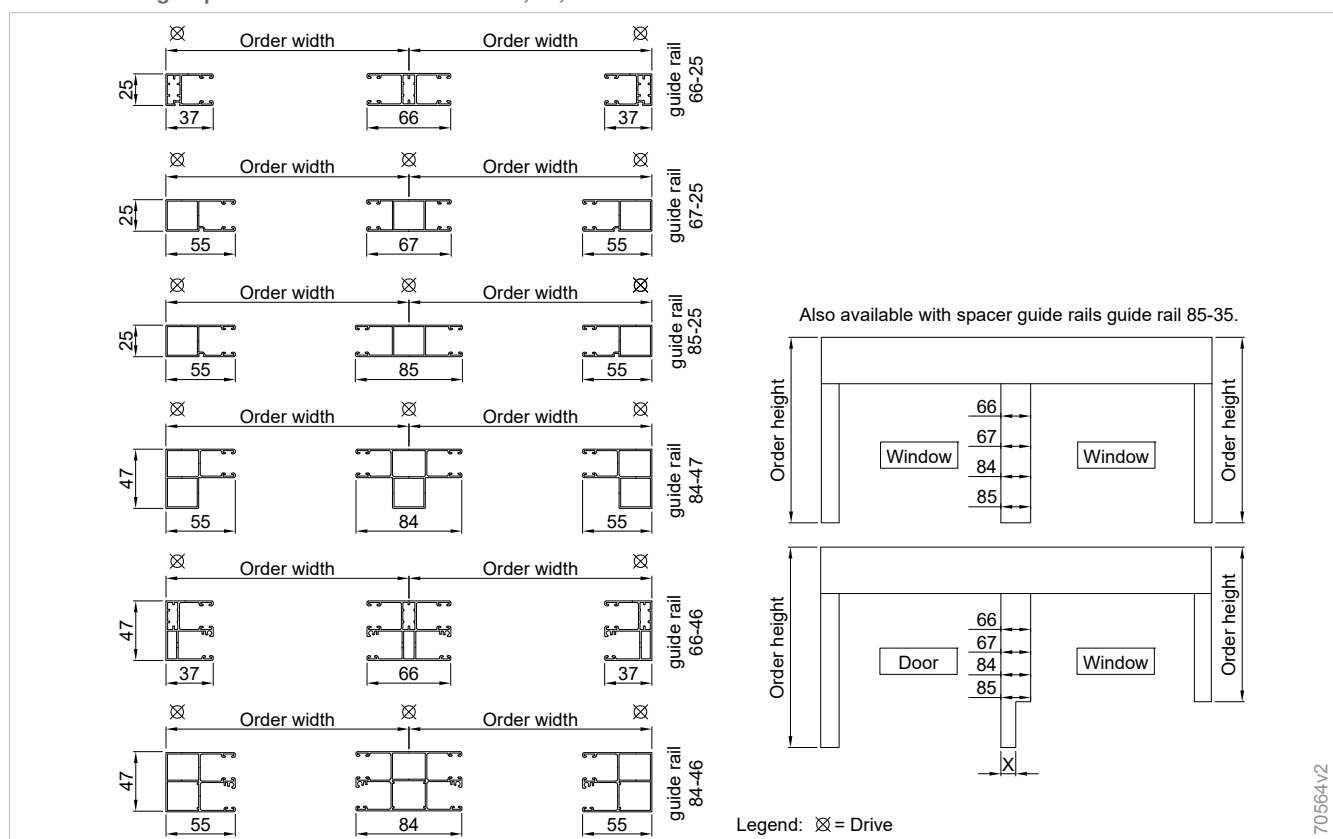
Standards

## Order data for group units with middle rail sizes 74, 92, 101 and 110



2 central drives only possible for middle rail sizes 74, 92, 101 and 110.

## Order data for group units with middle rail sizes 66, 67, 85 and 84



A maximum of 1 drive can be positioned in the middle of these middle rails.



## Additional box fastening

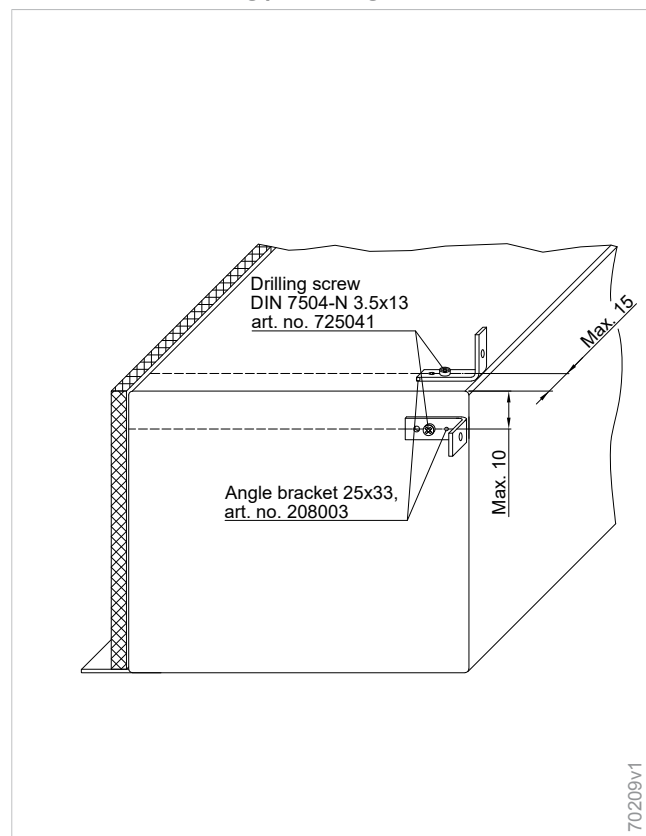
- We recommend additional box fastening using mounting brackets for order widths over 1500 mm.
- These angle brackets are supplied as standard for models with plaster pieces or for box shape Plaster.

### Scope of delivery:

- Angle bracket 25x33
- Per angle bracket: 2 drilling screws DIN 7504-3.5x13

- The fixing brackets can alternatively be positioned at the top or at the side.
- Do not use any screws longer than the ones supplied in the scope of delivery.
- The maximum distances (10 and 15 mm) must be observed.
- The angle bracket can also be turned and moved along the lines shown
- Drilled hole for on-site installation 4.2 mm

### Additional box fastening positioning



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Integrated insect screen roller blind (optional)

### Construction limit values with integrated insect screen roller blind

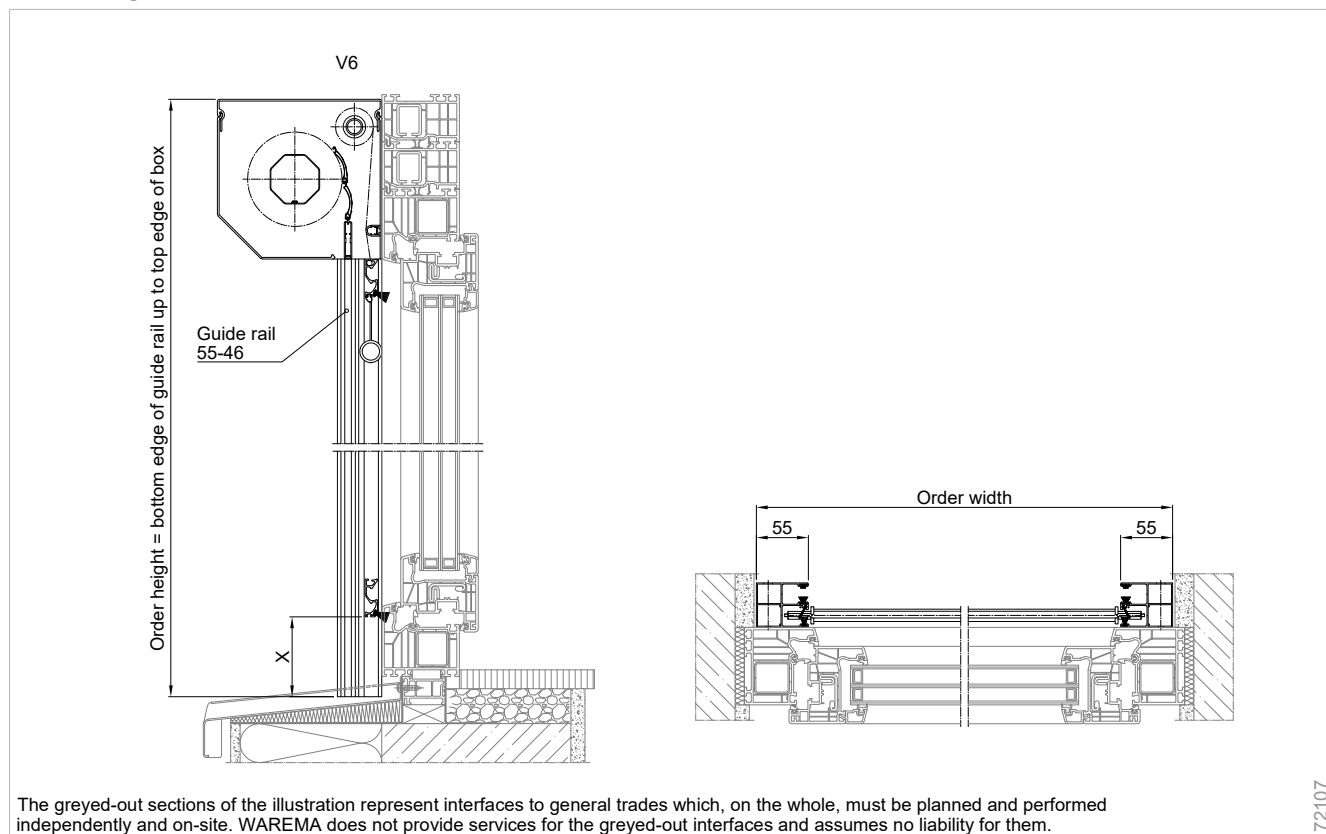
| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 710 mm        | 2000 mm       | -              | 2400 mm        | 4.8 m <sup>2</sup> |

#### Type-dependent limitations:

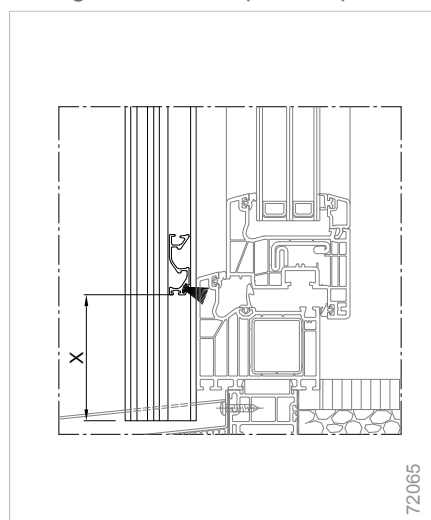
- An insect screen roller blind can only be used with a box size of 170 or greater.
- A 53 not possible in connection with insect screen roller blind.

**Drawings for front-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.**

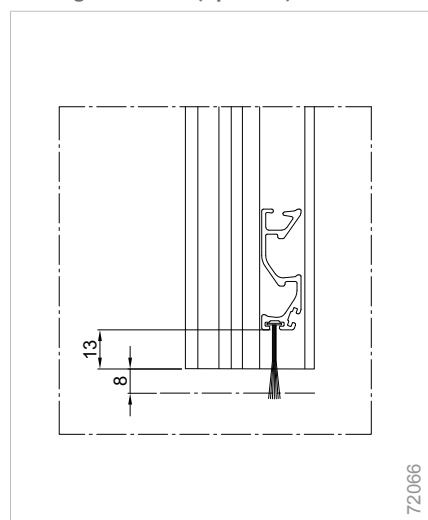
### V6 with integrated insect screen roller blind



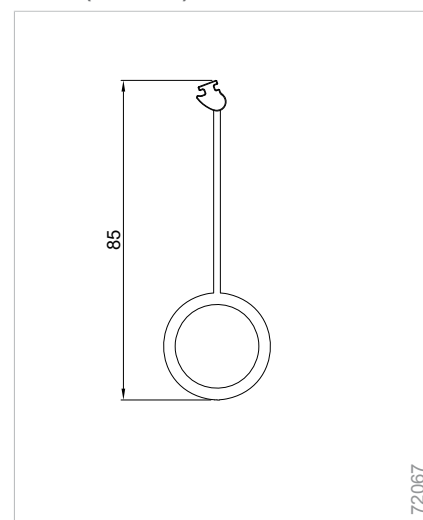
#### Sealing 90° to window (standard)



#### Sealing to bottom (optional)



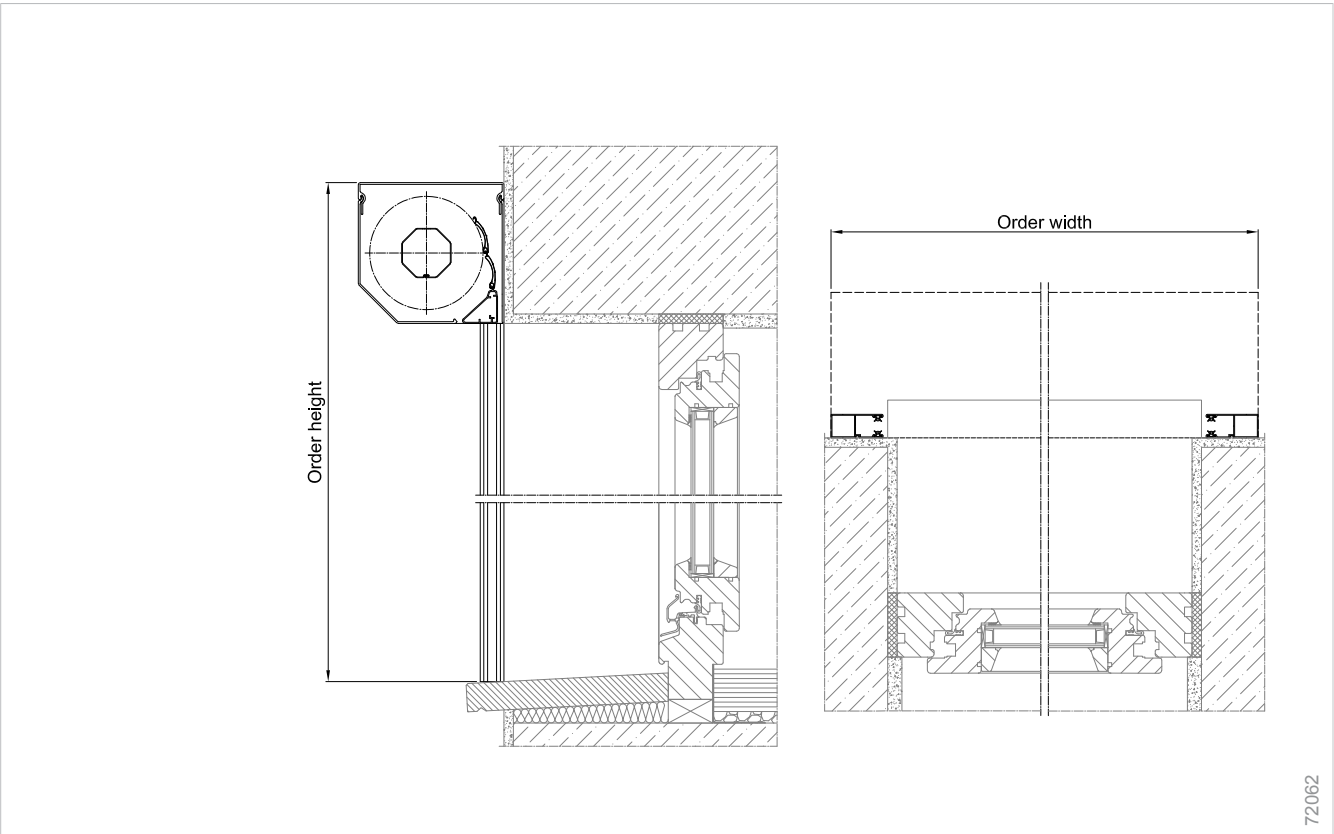
#### Tassel (standard)



➕ see "Integrated insect screen", Page 246

# Mounting examples

## Installation on the reveal, rectangular box shape



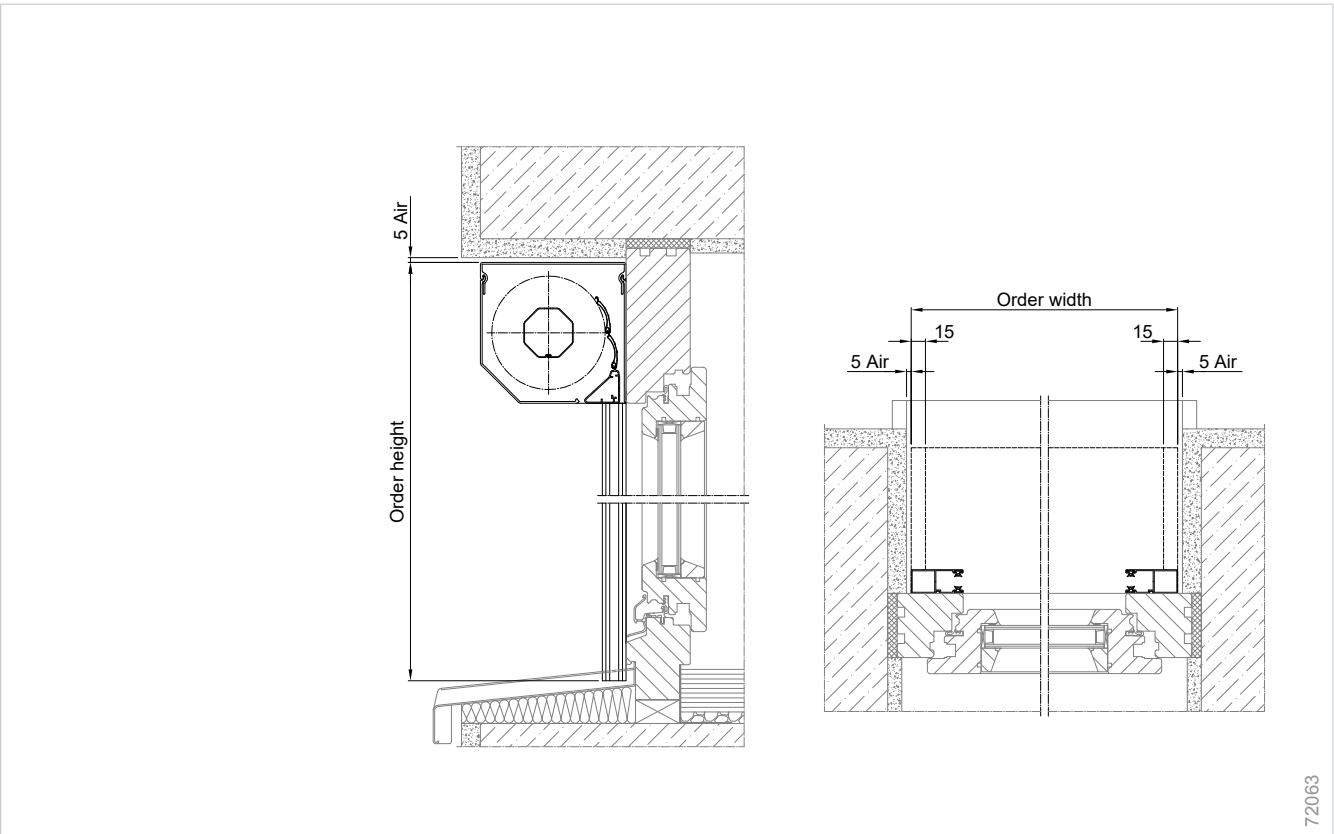
Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

## Installation in the reveal, rectangular box shape



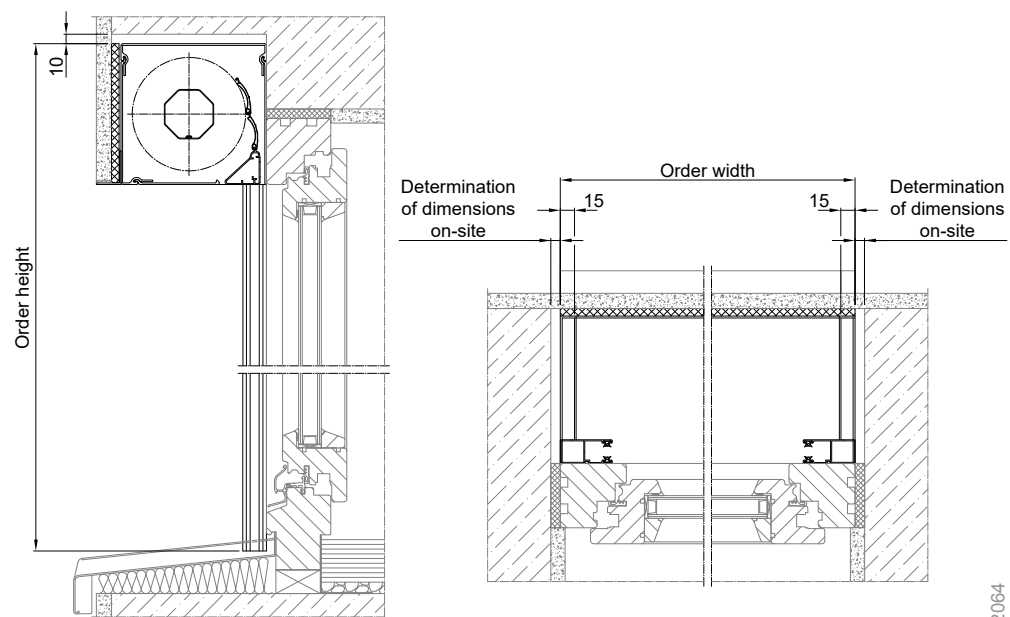
Supplementary accessories

Components

Drive variants

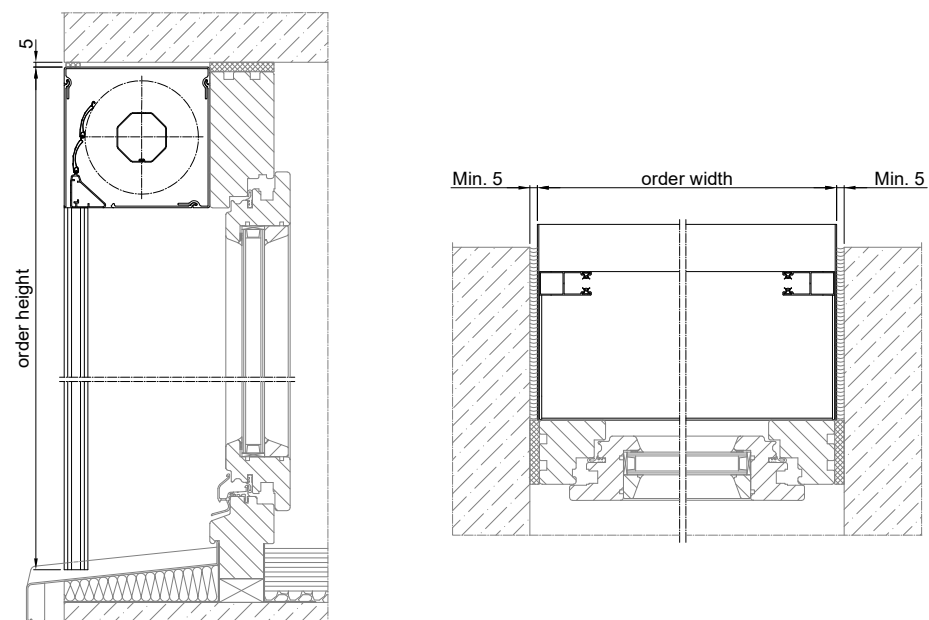
Standards

## Installation in the reveal, plaster box shape



72064

## Installation in the reveal, square box shape, right-rolling blind



71872v1

## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Front-mounted roller shutters  
<https://docs.warema.com/1.1313.9>





# Front-mounted roller shutters

## Front-mounted roller shutter V10

### All-rounder

Versatile, meaning it can be used regardless of the building design - for retrofitting as well as renovations or new buildings.

### Efficient

Thermal bridges are prevented and energy is thus saved thanks to the external box.

### Variety

Over 200 attractive colours available for powder-coated aluminium parts, insect protection integrated as standard as well as numerous optional supplementary accessories to choose from.



### Construction limit values

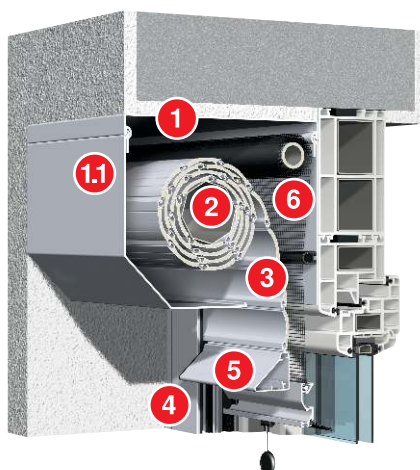
|                                   |                     |
|-----------------------------------|---------------------|
| Maximum order width               | 3500 mm             |
| Maximum order height              | 3500 mm             |
| Maximum order area                | 10.0 m <sup>2</sup> |
| Maximum order width of group unit | 6000 mm             |



### Product characteristics

- Extruded box
- Triangular design end rail, standard feature
- Insect screen, integrated

## Components



- |     |                        |   |                                       |
|-----|------------------------|---|---------------------------------------|
| 1   | Box                    | 4 | Lateral guidance                      |
| 1.1 | Inspection cover       | 5 | Bottom rail                           |
| 2   | Shaft                  | 6 | Insect screen roller blind (standard) |
| 3   | Roller shutter curtain |   |                                       |

### Box

#### Box shape V10 Rectangular

|                         |                                          |
|-------------------------|------------------------------------------|
| Material                | Aluminium, extruded                      |
| Surface                 | Powder-coated                            |
| Optional surface        | Anodised coloured                        |
| Box sizes               | 150, 170, 190, 210                       |
| Box model               | Closed on 4 sides                        |
| Box model, optional     | Closed on 3 sides                        |
| Unwinding direction     | Left-rolling blind                       |
| Plaster piece, optional | Plaster piece 12 mm, Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

+ see "Box shape V10, rectangular", Page 79

#### Box shape V10 Square

|                         |                                          |
|-------------------------|------------------------------------------|
| Material                | Aluminium, extruded                      |
| Surface                 | Powder-coated                            |
| Optional surface        | Anodised coloured                        |
| Box sizes               | 150, 170, 190                            |
| Box model               | Closed on 4 sides                        |
| Box model, optional     | Closed on 3 sides                        |
| Unwinding direction     | Left-rolling blind                       |
| Plaster piece, optional | Plaster piece 12 mm, Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

+ see "Box shape V10, square", Page 80

#### Box shape V10 Round

|                         |                                          |
|-------------------------|------------------------------------------|
| Material                | Aluminium, extruded                      |
| Surface                 | Powder-coated                            |
| Optional surface        | Anodised coloured                        |
| Box sizes               | 150, 170, 190, 210                       |
| Box model               | Closed on 4 sides                        |
| Box model, optional     | Closed on 3 sides                        |
| Unwinding direction     | Left-rolling blind                       |
| Plaster piece, optional | Plaster piece 12 mm, Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. These angle brackets are supplied as standard for models with plaster pieces.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

⊕ see "Box shape V10, round", Page 80

##### Box shape V10 Plaster (optional)

|                         |                     |
|-------------------------|---------------------|
| Material                | Aluminium, extruded |
| Surface                 | Powder-coated       |
| Optional surface        | Anodised coloured   |
| Box sizes               | 150, 170, 190       |
| Box model               | Closed on 4 sides   |
| Box model, optional     | Closed on 3 sides   |
| Unwinding direction     | Left-rolling blind  |
| Plaster piece           | Plaster piece 12 mm |
| Plaster piece, optional | Plaster piece 26 mm |

- Concealed box cut edges
- **Additional box fastening:** For order widths of 1500 mm and greater we recommend an additional box fastening. The angle brackets are supplied as standard for box shape Plaster.

#### + Side cover

##### Side covers for front-mounted roller shutters

|          |                   |
|----------|-------------------|
| Material | Diecast aluminium |
| Surface  | Powder-coated     |

#### + Inspection cover

##### Inspection cover for front-mounted roller shutters

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

#### + Plaster base profile

##### 25 mm projection

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| Material        | Aluminium, extruded                                        |
| Surface         | Powder-coated                                              |
| Material, notes | Plaster base profile and plaster pieces are powder-coated. |

- 25 mm projection

Plaster base profile, optional:

- 10 mm projection
- 15 mm projection
- 20 mm projection
- 40 mm projection
- Plaster base profile, shortened

⊕ see "Box shape V10, plaster", Page 81

## Shaft

##### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

## Roller shutter curtain

- A 36
- A 44
- K 36
- S 37

⊕ see "Roller shutter curtain", Page 274

## Bottom rail

- Triangular design end rail

⊕ see "End rails", Page 322

## Guide variants

- Rail guidance

## Guide rail

- Guide rail 55-48

Guide rail, optional:

- Guide rail 55-52

⊕ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

Basic motor, optional:

- 12 volt motor for solar drive incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)
- WAREMA SecuKit, motor with additional belt operation
- Motor with battery module

### Radio motor, optional

- WMS Radio motor type WMS-RT inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RT incl. EWFS Wall-mounted transmitter 1-channel, wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with internal gear

Crank, optional:

- Crank with extendible gear

### Gear

- Crank type 1, crank
- Crank type 2, bevel gear

### Belt

- Belt, 14 mm

Belt, optional:

- Belt, 23 mm (only in connection with box shape plaster and box extension; note limited order height, see Chapter "Drives")
- Belt with extendible belt disc (14 mm belt)
- Belt deflection
- Step-up gear for belt

### Cord, optional

- Internal cord

➤ see "Drive variants", Page 329

## Colours

- WAREMA Colour World
- Anodised C0
- Colours for shutter profiles

Colours, optional:

- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

➤ see "Colours", Page 12

## Insect screen

- Integrated insect screen roller blind

Insect screen, optional:

- Integrated insect screen fixed frame
- Integrated insect screen swivel door
- Integrated insect screen swinging door
- Integrated insect screen pleated blind

➤ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen
- Security package
- Integrated lintel insulation
- Printed roller shutter curtain
- Solar drive
- WAREMA SecuKit
- Battery module UP
- Emergency power supply kit

➤ see "Supplementary accessories", Page 235

## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum box width:** 3000 mm when closed on 3 sides, 6000 mm when closed on 4 sides
- **Model with roller shutter curtain S 37:** couplings or continuous boxes are not possible!
- **Additional box fastening:** recommended with order width of 1500 mm and up
- **Maximum number of single roller shutter curtains within a group unit:** 3
- **Model with integrated insect screen:** typically in combination with triangular design end rail

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 6000 mm                           | 18 m <sup>2</sup>                |
| A 44                                                   |                     | 3500 mm             | 2900 mm              | 10 m <sup>2</sup>  | 6000 mm                           | 17 m <sup>2</sup>                |
| S 37                                                   |                     | 3000 mm             | 2800 mm              | 7 m <sup>2</sup>   | 6000 mm                           | 7 m <sup>2</sup>                 |
| K 36                                                   |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 6000 mm                           | 9,6 m <sup>2</sup>               |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 640 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 660 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt / Cord                                    | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 710 mm              | 2000 mm             | 2500 mm              | 5 m <sup>2</sup>   |                                   |                                  |
| Insect screen roller blind without soft-raise function | 530 mm              | 2000 mm             | 2500 mm              | 5 m <sup>2</sup>   |                                   |                                  |

Construction limit values for a model with further insect screen solutions, such as insect screens for doors, can be found in the TechDataPLUS under additional product information.

## Maximum order area per operating class

| Configuration variants                         | Operating classes  |                    |                    |
|------------------------------------------------|--------------------|--------------------|--------------------|
|                                                | Design-related     | Operating class 1  | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                    |                    |                    |
| A 36 + Motor                                   | 18 m <sup>2</sup>  |                    |                    |
| A 44 + Motor                                   | 17 m <sup>2</sup>  |                    |                    |
| S 37 + Motor                                   | 7 m <sup>2</sup>   |                    |                    |
| K 36 + Motor                                   | 9,6 m <sup>2</sup> |                    |                    |
| A 36 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 3 m <sup>2</sup>   |
| A 44 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 36 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| A 36 + Crank type 2                            | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 5,5 m <sup>2</sup> |
| A 44 + Crank type 2                            | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| S 37 + Crank type 2                            | 2,9 m <sup>2</sup> | 2,9 m <sup>2</sup> | 2 m <sup>2</sup>   |
| K 36 + Crank type 2                            | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| A 36 + Crank with extendible gear              | 3 m <sup>2</sup>   | 3 m <sup>2</sup>   | 3 m <sup>2</sup>   |
| A 44 + Crank with extendible gear              | 3 m <sup>2</sup>   | 3 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 36 + Crank with extendible gear              | 3 m <sup>2</sup>   | 3 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| A 36 + Internal belt                           | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 44 + Internal belt                           | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 36 + Internal belt                           | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 36 + Extendible belt disc, belt 14 mm        | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 44 + Extendible belt disc, belt 14 mm        | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 36 + Extendible belt disc, belt 14 mm        | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 36 + Belt deflection                         | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 44 + Belt deflection                         | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 36 + Belt deflection                         | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 36 + Step-up gear for belt                   | 8 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| A 44 + Step-up gear for belt                   | 7 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| K 36 + Step-up gear for belt                   | 7 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| A 36 + Internal cord                           | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   | 0,5 m <sup>2</sup> |
| A 44 + Internal cord                           | 1,5 m <sup>2</sup> | 1 m <sup>2</sup>   | 0,5 m <sup>2</sup> |
| K 36 + Internal cord                           | 1,5 m <sup>2</sup> | 1 m <sup>2</sup>   | 0,5 m <sup>2</sup> |

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order height per box size

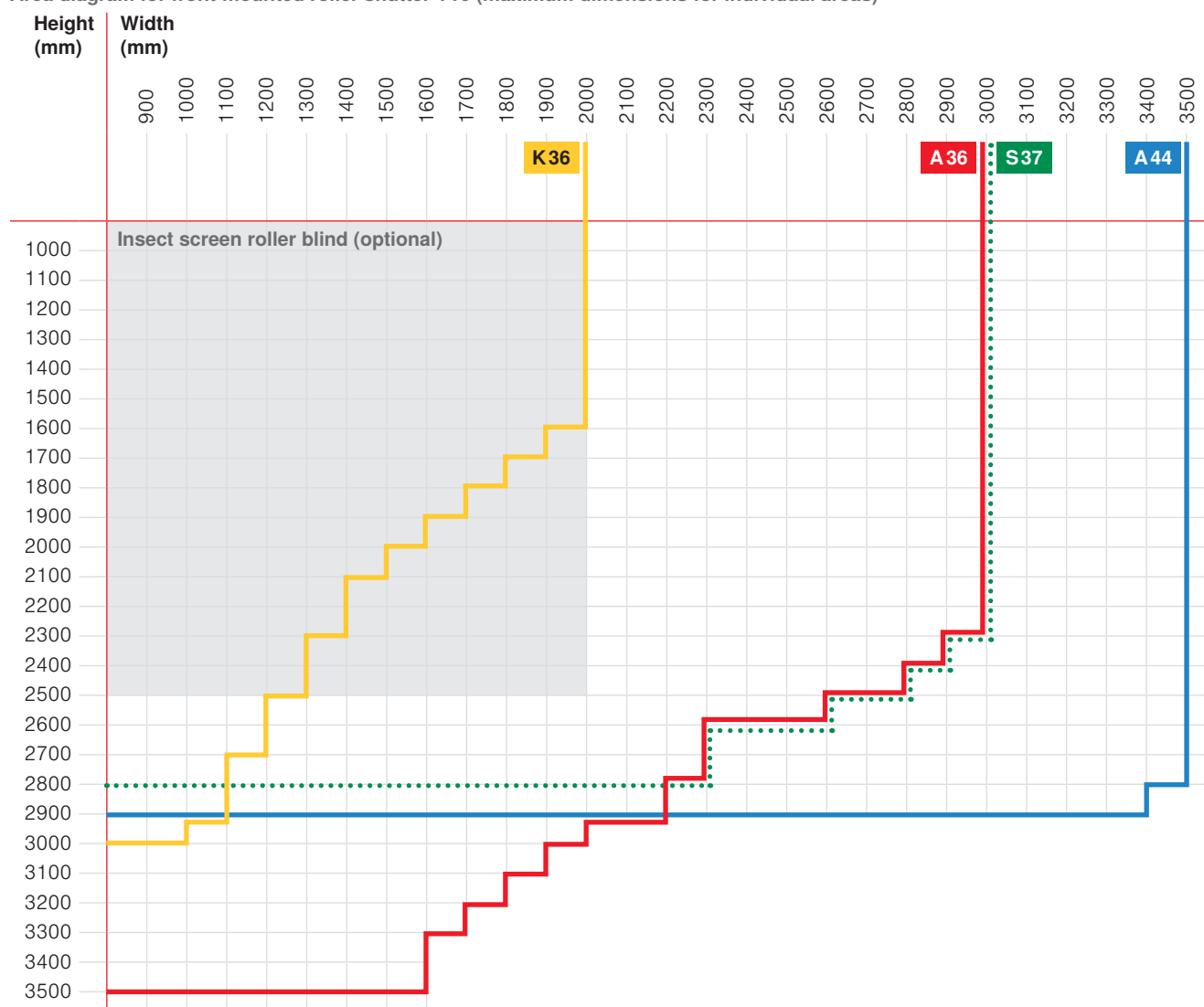
| Configuration variants        | Box sizes |         |         |         |
|-------------------------------|-----------|---------|---------|---------|
|                               | 150       | 170     | 190     | 210     |
| <b>Roller shutter curtain</b> |           |         |         |         |
| A 36                          | 1900 mm   | 2750 mm | 3250 mm | 3500 mm |
| A 44                          | 1100 mm   | 1700 mm | 2350 mm | 2900 mm |
| S 37                          | 1700 mm   | 2400 mm | 2800 mm | 2800 mm |
| K 36                          | 1900 mm   | 2650 mm | 3000 mm | 3000 mm |

## Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2780 mm | 2705 mm | 2560 mm | 2265 mm | 1825 mm | 1500 mm |
| A 44                          | 3500 mm               | 3295 mm | 3200 mm | 3010 mm | 2625 mm | 2055 mm | 1600 mm |
| S 37                          |                       |         |         | 3000 mm | 2790 mm | 2375 mm | 1820 mm |
| K 36                          | 2000 mm               | 1750 mm | 1600 mm | 1400 mm | 1200 mm | 1000 mm | 900 mm  |

Wind resistance class 1 generally applies to insect screen roller blinds.

Area diagram for front-mounted roller shutter V10 (maximum dimensions for individual areas)



## Dimension determination

| Reference dimension | Dimension determination                                    |
|---------------------|------------------------------------------------------------|
| Order width         | Back edge of the guide rail to back edge of the guide rail |
| Order height        | Bottom edge of the guide rail to top edge of the box       |
| Box height          | see box dimensions for each box shape                      |
| Box depth           | see box dimensions for each box shape                      |
| Air                 | 5 mm                                                       |

- **Operation side:** seen from inside
- **Box size:** If a box size deviating from the standard (see construction limit values table) is desired, this must be specified with the order.
- **Plaster pieces:** specified if necessary (standard 12 mm plaster pieces included with box shape plaster, otherwise optional)

## Box dimensions

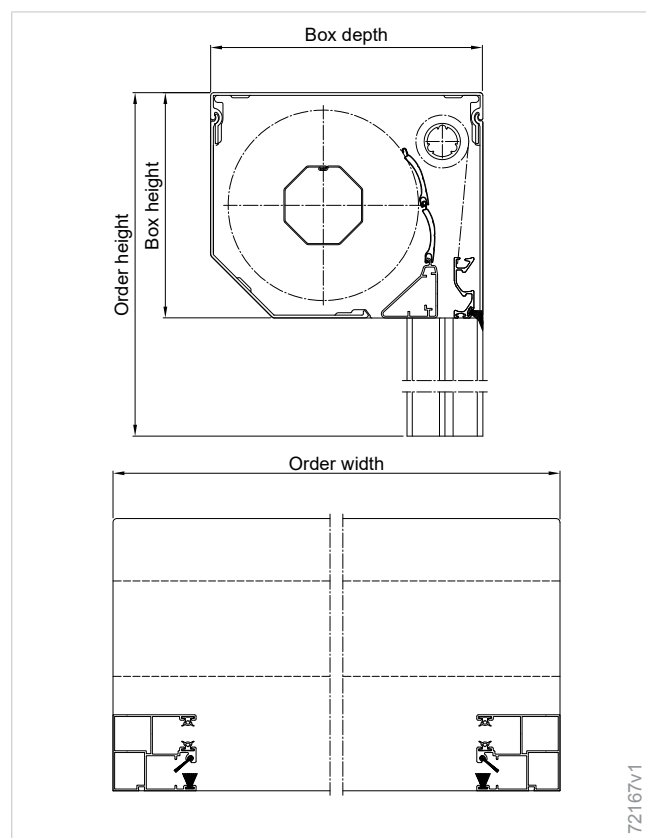
### Box shape V10, rectangular

- Box closed on 4 sides as standard (maximum box width: 6000 mm)
- Box closed on 3 sides optional (maximum box width: 3000 mm)

| Box sizes | H1     | H2     | D      |
|-----------|--------|--------|--------|
| 150       | 149 mm | 108 mm | 180 mm |
| 170       | 169 mm | 123 mm | 200 mm |
| 190       | 189 mm | 137 mm | 220 mm |
| 210       | 209 mm | 151 mm | 240 mm |

- Mitre cuts possible only in combination with box closed on 4 sides

### Order dimension determination V10



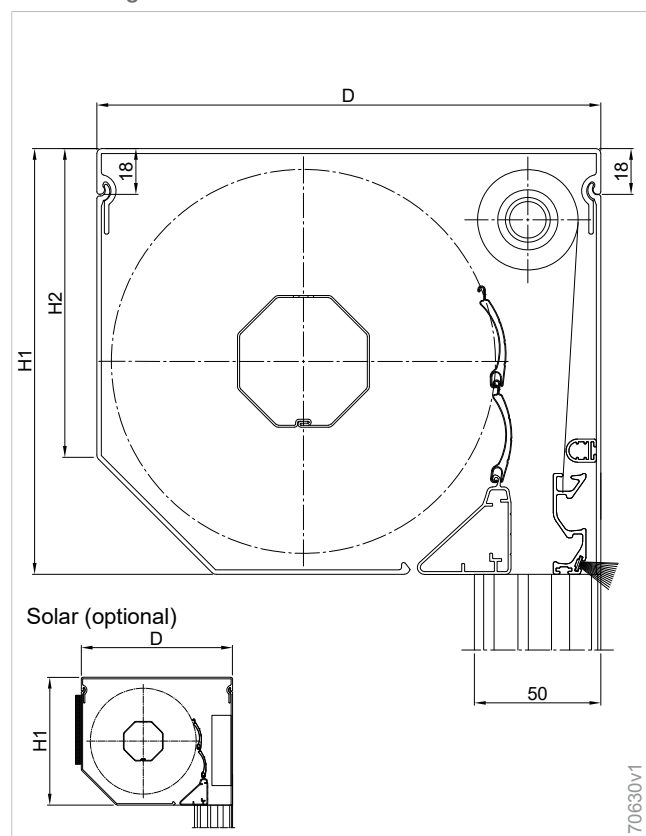
Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

### V10 Rectangular



Supplementary accessories

Components

Drive variants

Incl. box detail with solar drive supplementary accessory

Standards

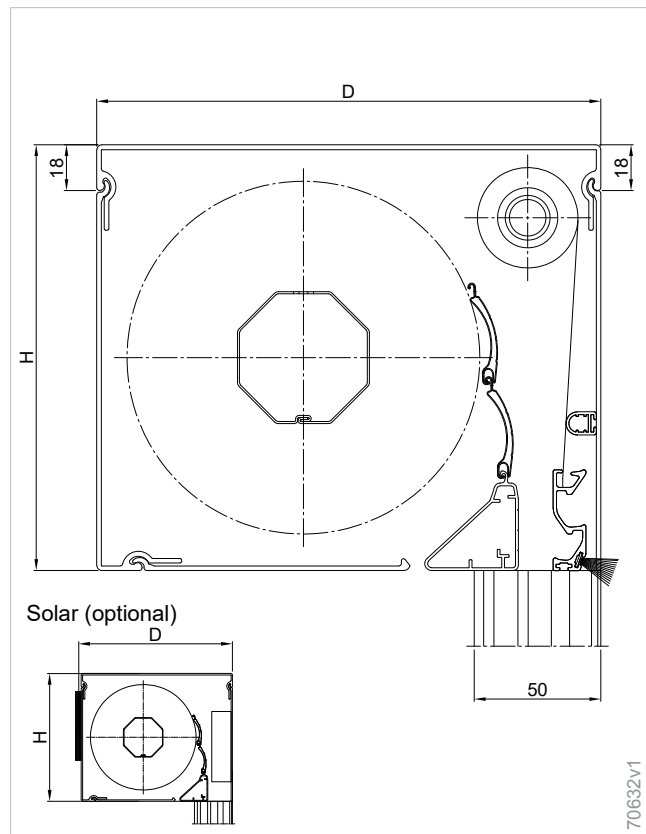
## Box shape V10, square

- Box closed on 4 sides as standard (maximum box width: 6000 mm)
- Box closed on 3 sides optional (maximum box width: 3000 mm)

| Box sizes | H      | D      |
|-----------|--------|--------|
| 150       | 149 mm | 180 mm |
| 170       | 169 mm | 200 mm |
| 190       | 180 mm | 220 mm |

- Mitre cuts possible only in combination with box closed on 4 sides

## V10 Square



Incl. box detail with solar drive supplementary accessory

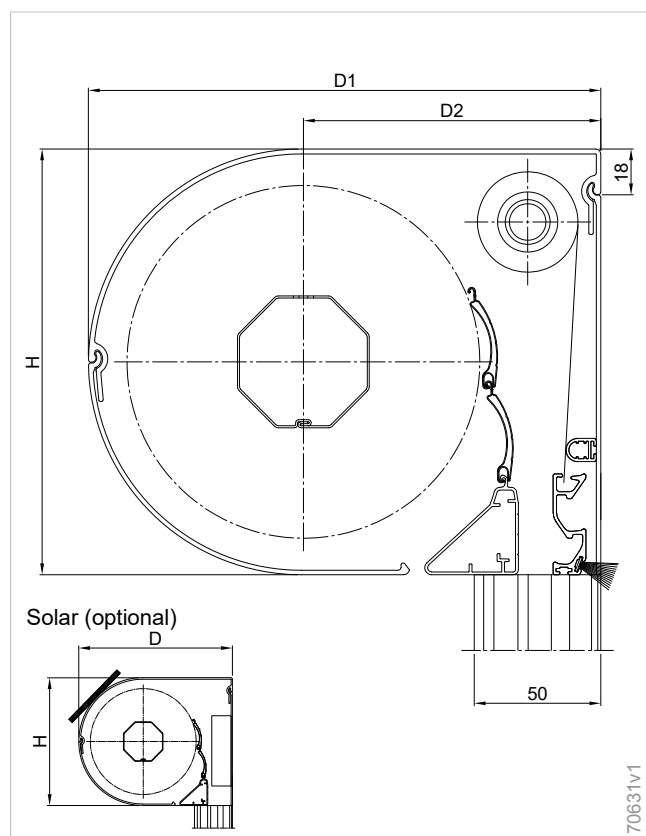
## Box shape V10, round

- Box closed on 4 sides as standard (maximum box width: 6000 mm)
- Box closed on 3 sides optional (maximum box width: 3000 mm)

| Box sizes | H      | D1     | D2     |
|-----------|--------|--------|--------|
| 150       | 149 mm | 183 mm | 106 mm |
| 170       | 169 mm | 203 mm | 116 mm |
| 190       | 189 mm | 223 mm | 126 mm |
| 210       | 209 mm | 243 mm | 136 mm |

- Mitre cuts possible only in combination with box closed on 4 sides

## V10 Round



Incl. box detail with solar drive supplementary accessory



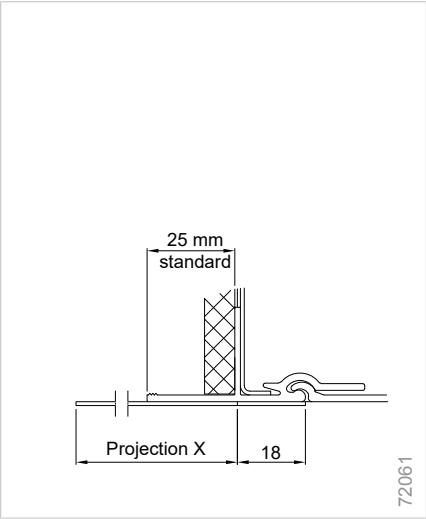
# Box shape V10, plaster

- Box closed on 4 sides as standard (maximum box width: 6000 mm)
- Box closed on 3 sides optional (maximum box width: 3000 mm)
- Box incl. rear side (for boxes closed on 4 sides), powder-coated
- Inspection cover, plaster base profile and plaster pieces powder-coated

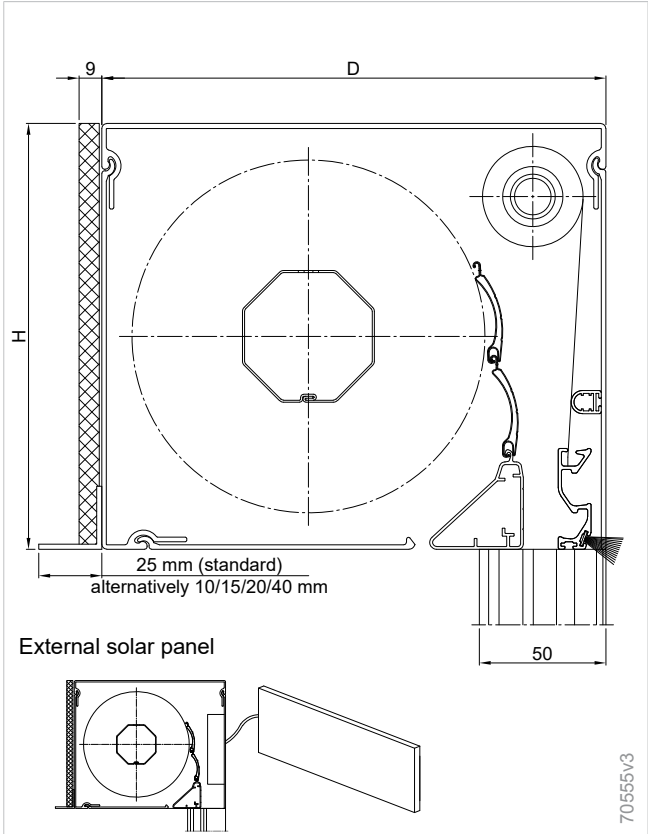
| Box sizes | H      | D      |
|-----------|--------|--------|
| 150       | 149 mm | 180 mm |
| 170       | 169 mm | 200 mm |
| 190       | 189 mm | 220 mm |

- Plaster base profiles with a projection are available in intermediate sizes upon enquiry.
- The projection of the plaster base profile must be 15 mm for an exterior insulation and finish system (EIFS).
- The plaster base profile is used as a visual closure and is not suitable for bearing loads from the insulation.
- Mitre cuts are possible only in combination with boxes closed on 4 sides.
- For models with solar drive, the solar panel is supplied unassembled.

## Detail of plaster base profile extension



## V10 plaster



Incl. box detail with solar drive supplementary accessory (with external solar panel)

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Additional product information

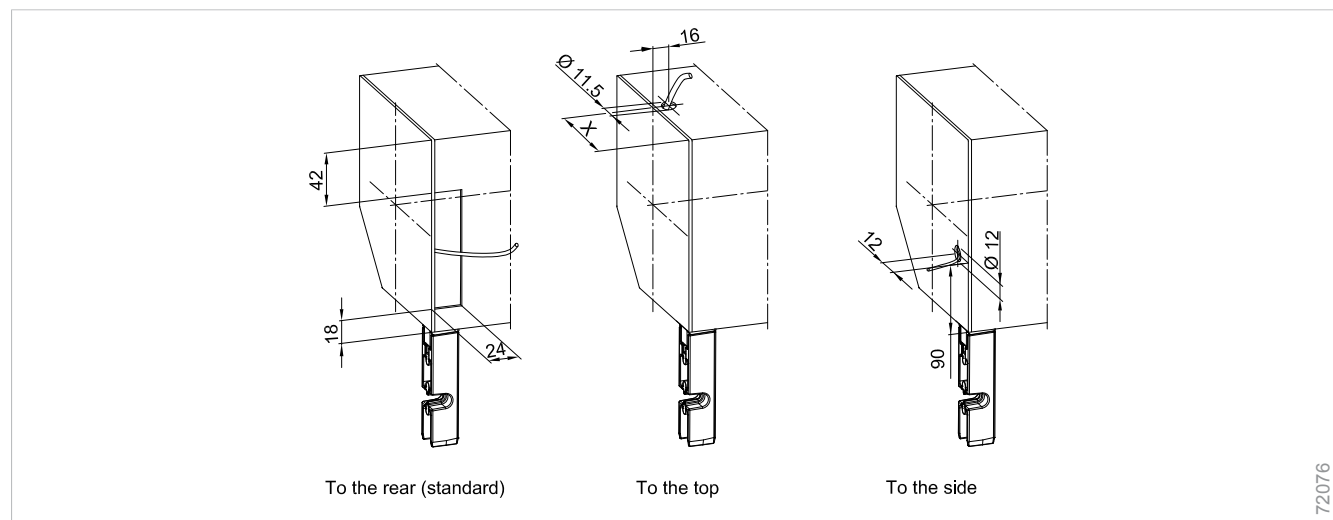
### Drive details, motor

#### Allocation of dimension X

| Box size | Dimension X, box shape E, Q, P | Dimension X, box shape R |
|----------|--------------------------------|--------------------------|
| 130      | -                              | -                        |
| 150      | 103                            | 65                       |
| 170      | 113                            | 110                      |
| 190      | 123                            | 85                       |
| 210      | 132                            | 95                       |

- Cable exit at bottom through guide rail not possible for V10

#### Motor line outlet



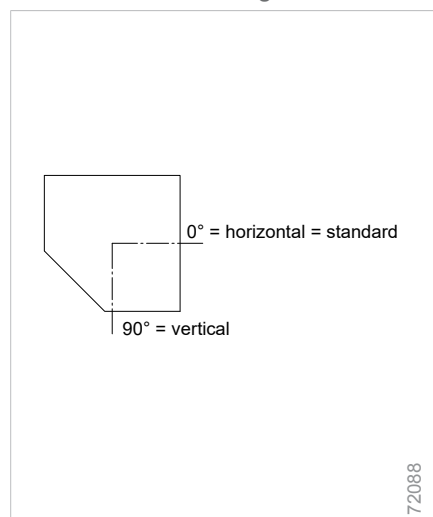
## Drive details, crank

### Outlet angle for crank, allocation of dimension X

| Box size     | Dimension X for W max. | W min. | W max. |
|--------------|------------------------|--------|--------|
| Crank type 1 |                        |        |        |
| 150          | 125                    | 0°     | 40°    |
| 170          | 144                    | 0°     | 40°    |
| 190          | 162                    | 0°     | 40°    |
| 210          | 184                    | 0°     | 41°    |
| Crank type 2 |                        |        |        |
| 150          | 124                    | 0°     | 25°    |
| 170          | 143                    | 0°     | 27°    |
| 190          | 162                    | 0°     | 29°    |
| 210          | 181                    | 0°     | 30°    |

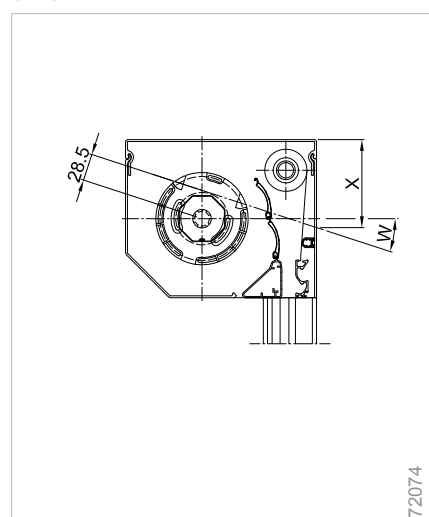
- **Direct fixing of joint plate on the box** for horizontal drive outlet (= 0°): this product variant must be indicated separately on the order form.

#### Drive outlet for left-rolling blind

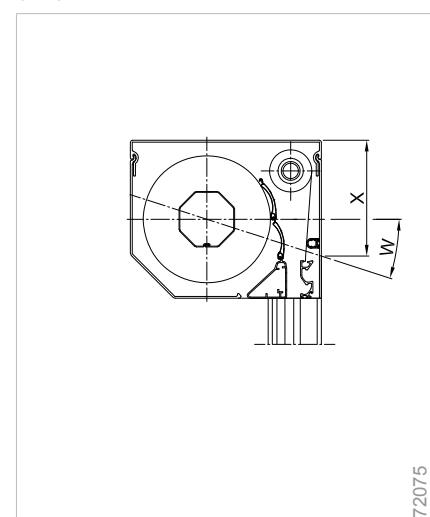


Vertical outlet only available from box size 150

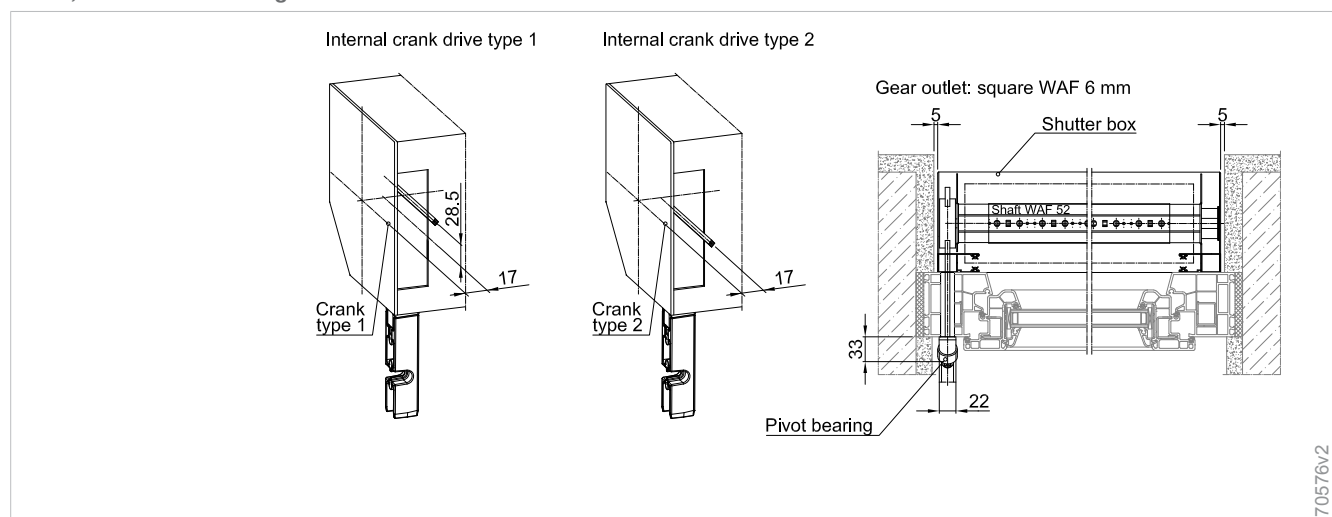
#### Outlet angle, crank type 1, left-rolling blind



#### Outlet angle, crank type 2, left-rolling blind



#### Crank, internal – left-rolling blind



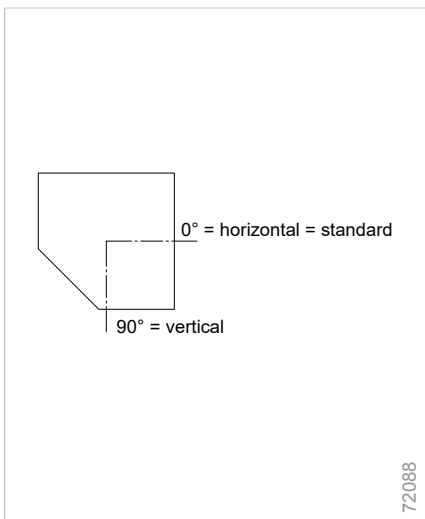
## Drive details, belt

- Horizontal belt outlet = standard model
- Optional vertical belt outlet (possible from box size 150)
- The displayed details also apply for step-up gear 2:1
- Step-up gear 2:1 only possible in combination with large swivel winder

### Allocation of dimension X

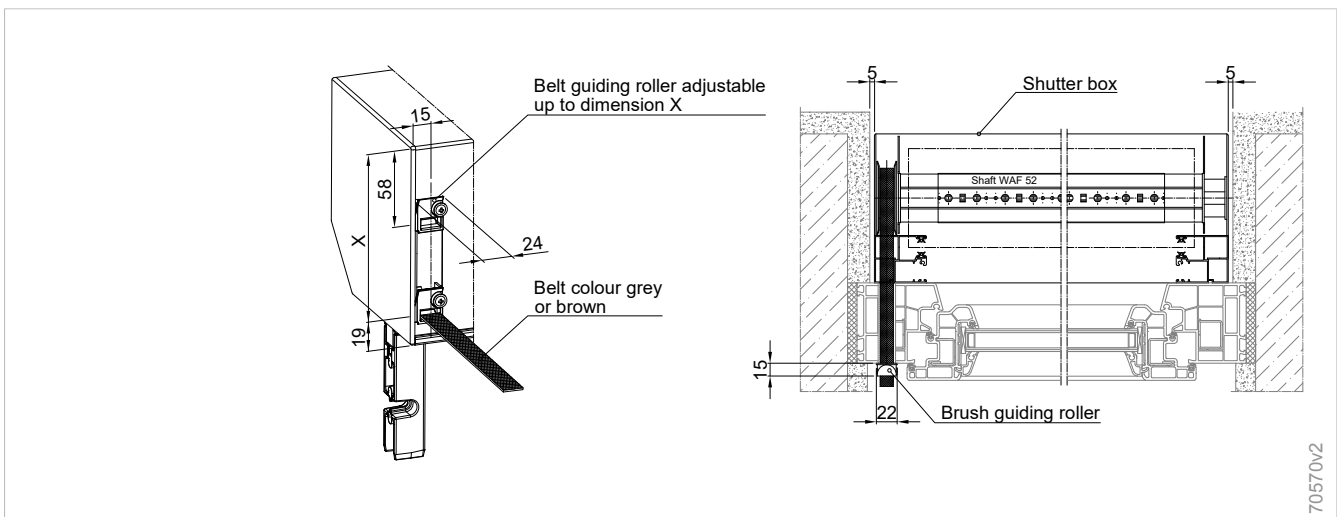
| Box size | Dimension X with belt guiding roller, adjustable |
|----------|--------------------------------------------------|
| 150      | 130                                              |
| 170      | 150                                              |
| 190      | 170                                              |
| 210      | 190                                              |

### Drive outlet for left-rolling blind



Vertical outlet only available from box size 150

### V10 belt, internal, adjustable belt guiding roller



## Group units

Multi-part roller shutters with continuous boxes and individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** always seen from inside, from left to right
- **Beginning and end position:** please indicate on order form
  - 2-part units: beginning position – end position
  - 3-part units: beginning position – middle position – end position

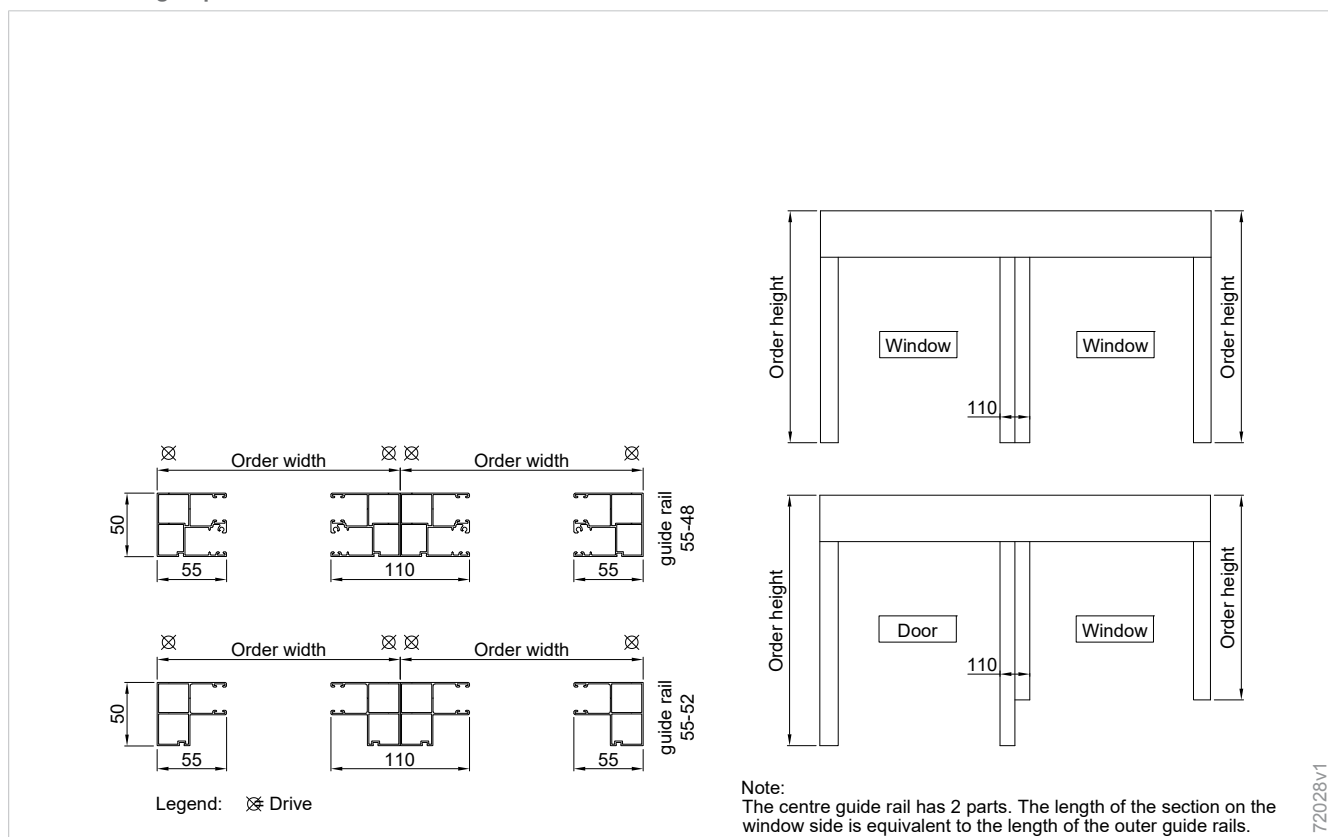
### Maximum box widths for V10 continuous boxes

| Box shape   | Box closed on 3 sides | Box closed on 4 sides |
|-------------|-----------------------|-----------------------|
| Rectangular | 3000 mm               | 6000 mm               |
| Square      | 3000 mm               | 6000 mm               |
| Round       | 3000 mm               | 6000 mm               |
| Plaster     | 3000 mm               | 6000 mm               |

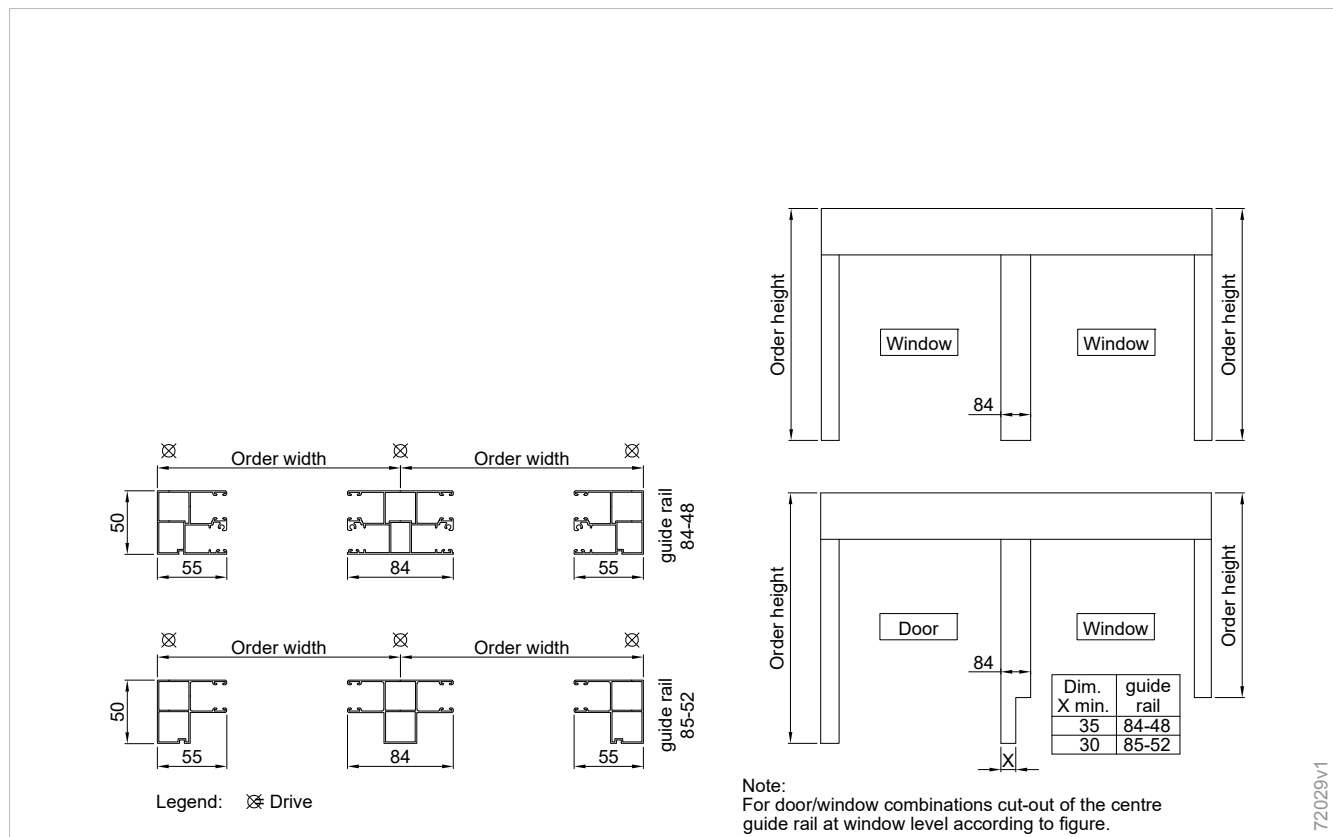
#### Notes on coupled roller shutters:

- A maximum of 3 individual roller shutters can be coupled within a continuous box. Please observe the maximum drive areas.
- For coupled roller shutter curtains, obstacle detection when lowering is not active for technical reasons!
- A central drive is not possible for coupled roller shutter curtains.

### Order data for group units with size 110 middle rail



## Order data for group units with middle rail size 84



A maximum of 1 drive can be positioned in the middle of size 84 middle rails.

## Additional box fastening

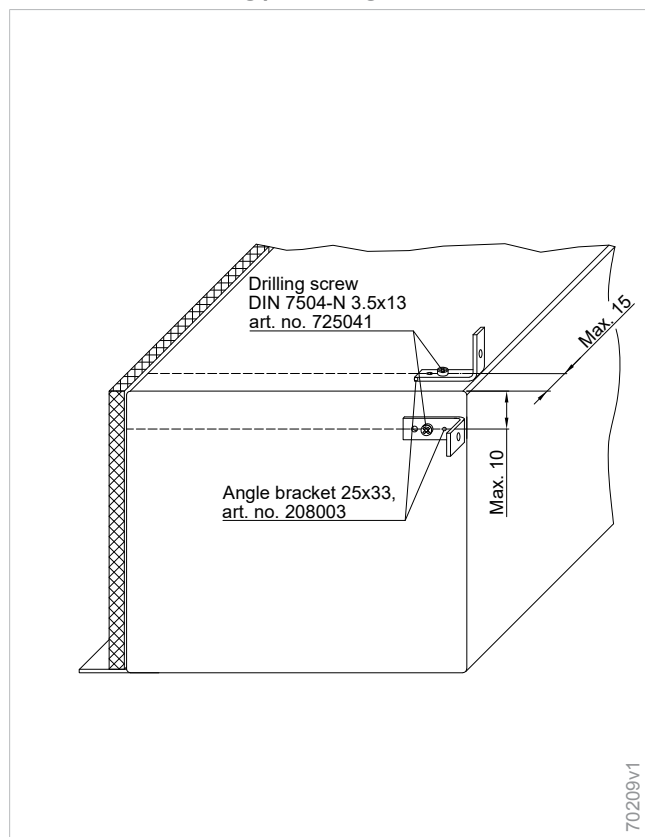
- We recommend additional box fastening using mounting brackets for order widths over 1500 mm.
- These angle brackets are supplied as standard for models with plaster pieces or for box shape Plaster.

### Scope of delivery:

- Angle bracket 25x33
- Per angle bracket: 2 drilling screws DIN 7504-3.5x13

- The fixing brackets can alternatively be positioned at the top or at the side.
- Do not use any screws longer than the ones supplied in the scope of delivery.
- The maximum distances (10 and 15 mm) must be observed.
- The angle bracket can also be turned and moved along the lines shown
- Drilled hole for on-site installation 4.2 mm

## Additional box fastening positioning



# Integrated insect screen roller blind

Construction limit values with integrated insect screen roller blind (included in the maximum construction limit values as standard)

| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 710 mm        | 2000 mm       | -              | 2500 mm        | 5.0 m <sup>2</sup> |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

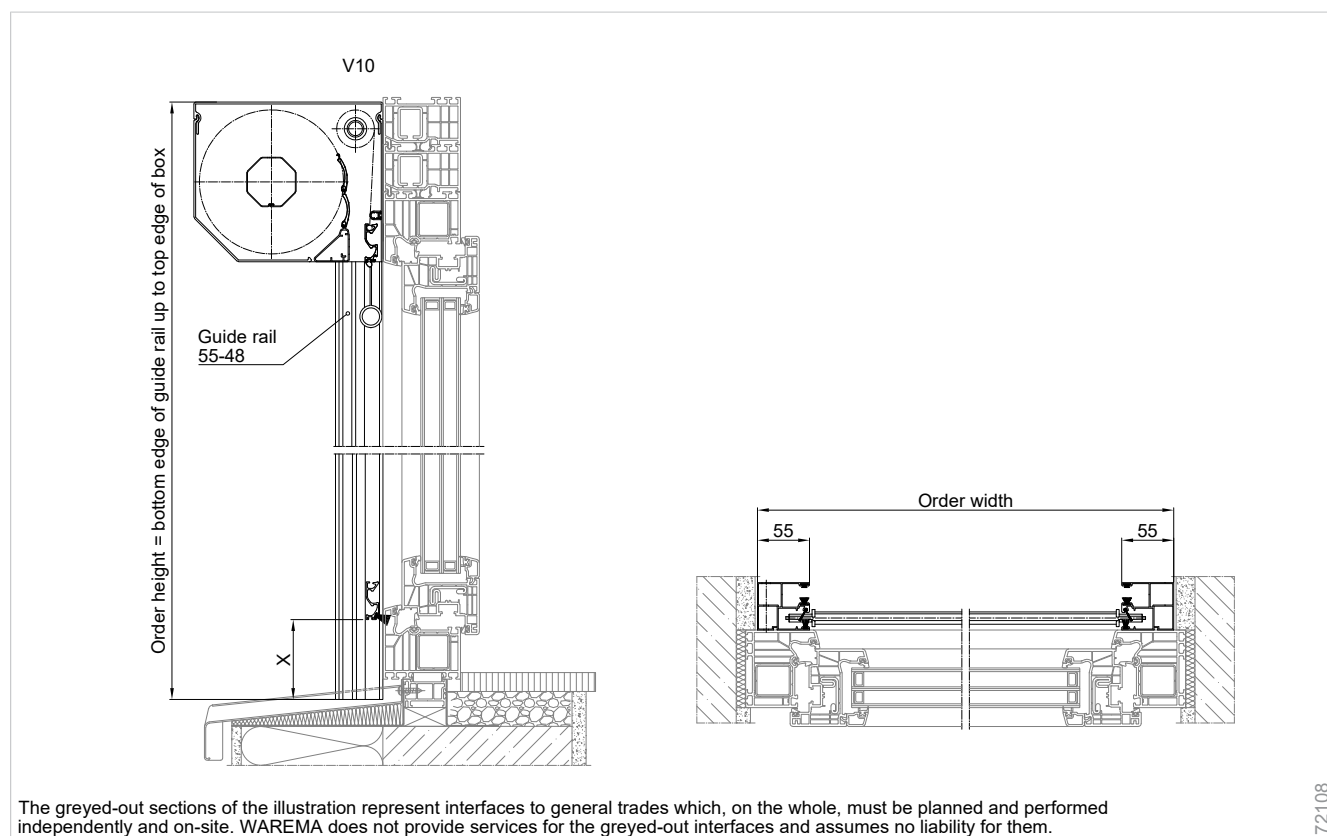
Standards

## Type-dependent limitations:

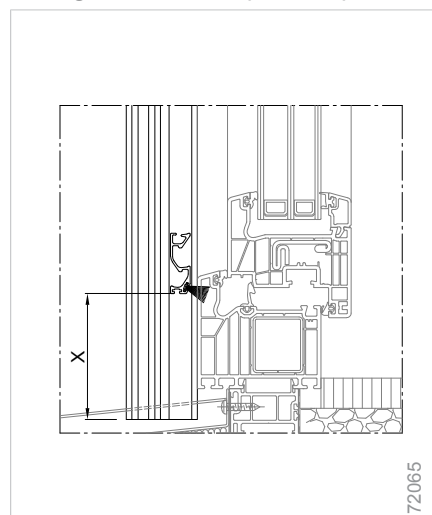
A 53 not possible in connection with insect screen roller blind.

Drawings for front-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.

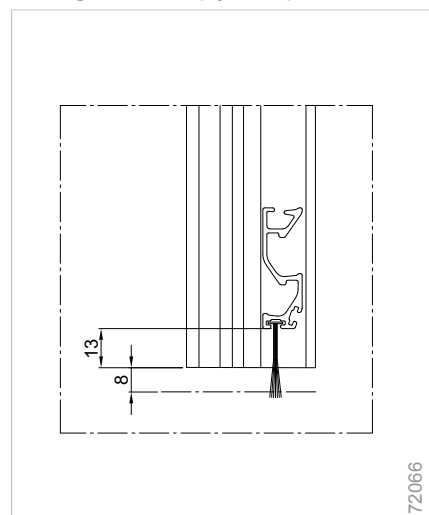
## Position of insect screen handle rail in box



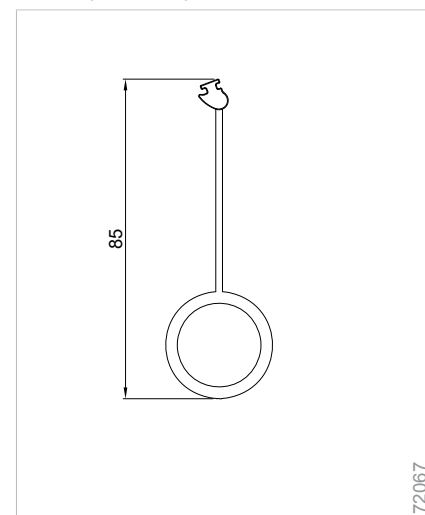
## Sealing 90° to window (standard)



## Sealing to bottom (optional)



## Tassel (standard)

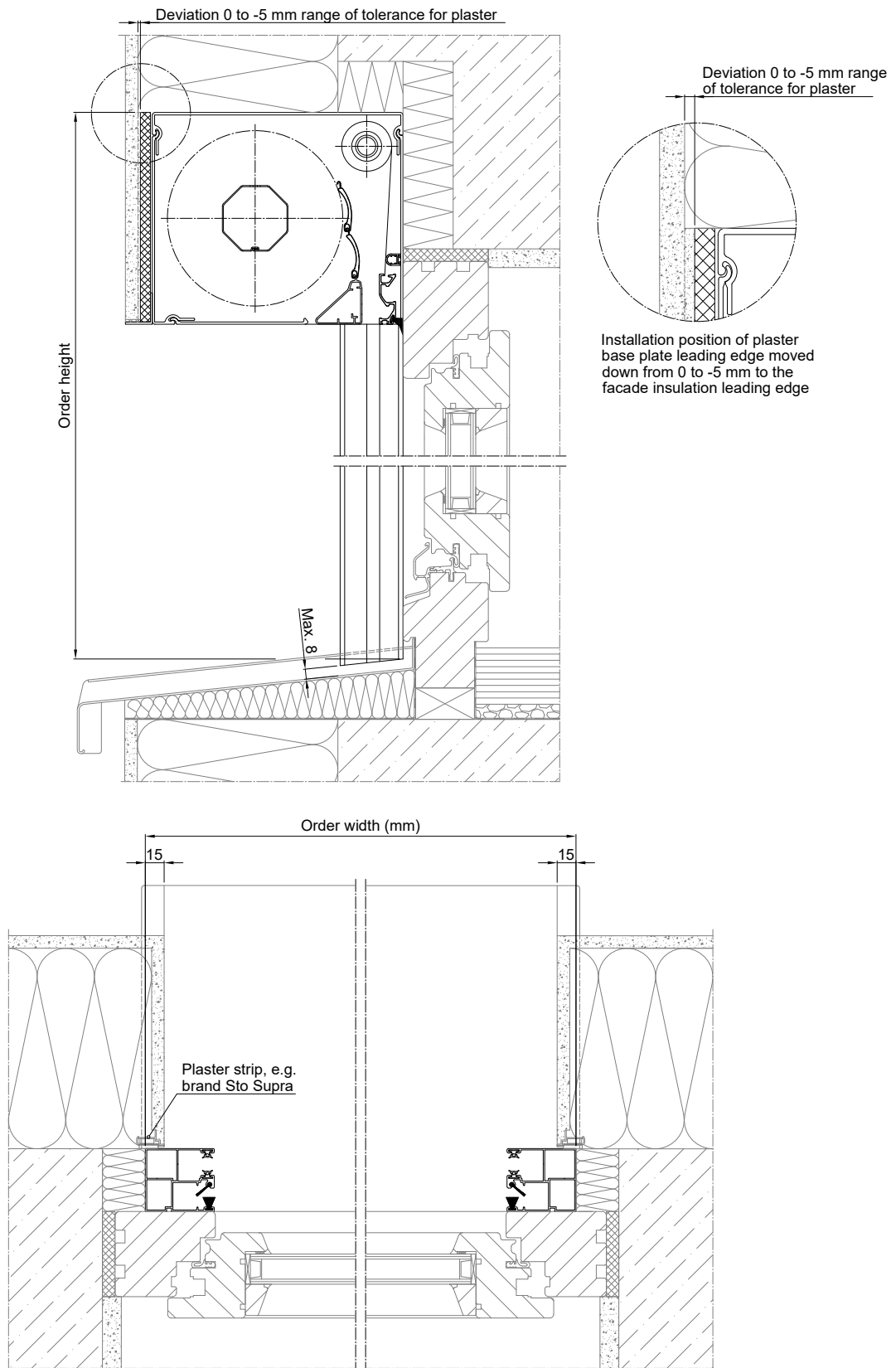


+ see "Integrated insect screen", Page 246



## Mounting examples

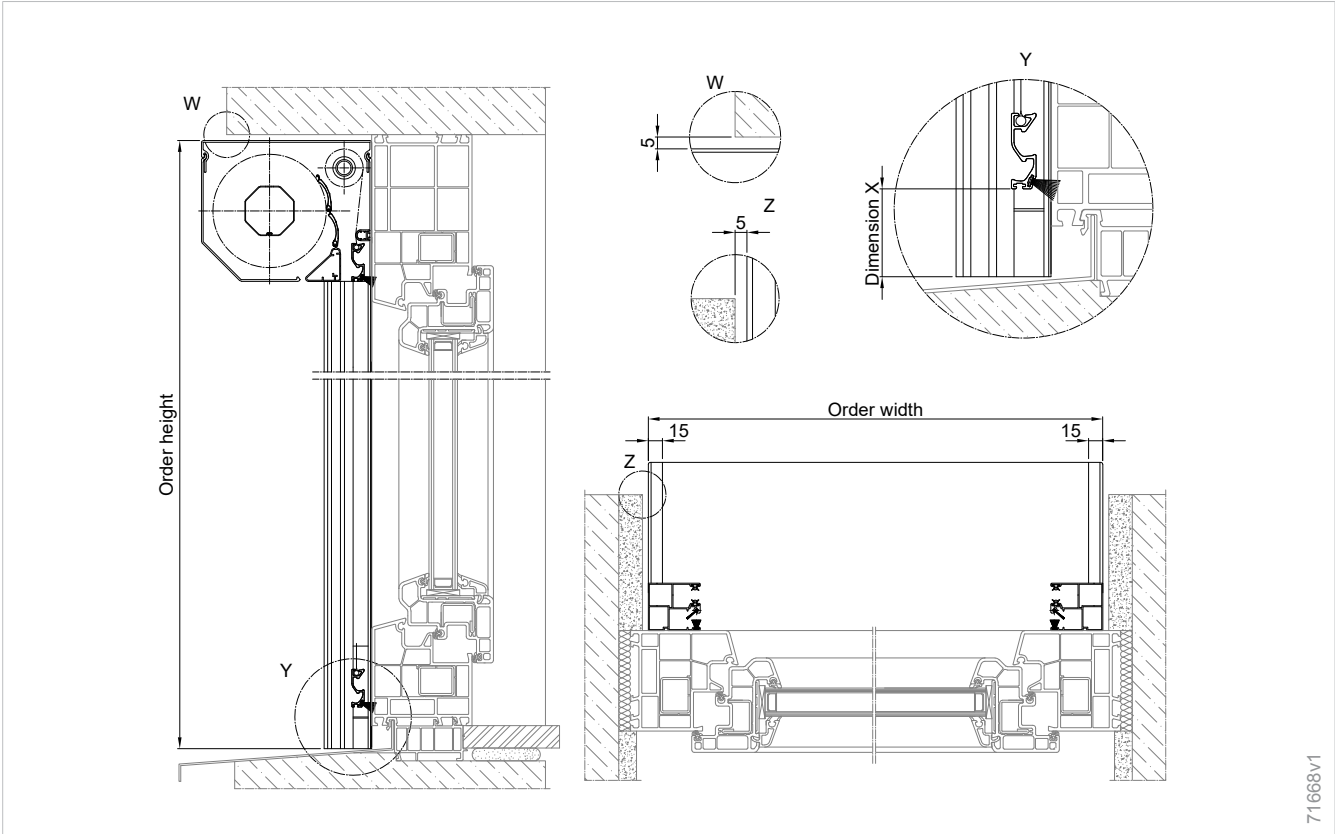
### Installation in the reveal, plaster box shape



The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

71094V2

Installation in the reveal, rectangular box shape

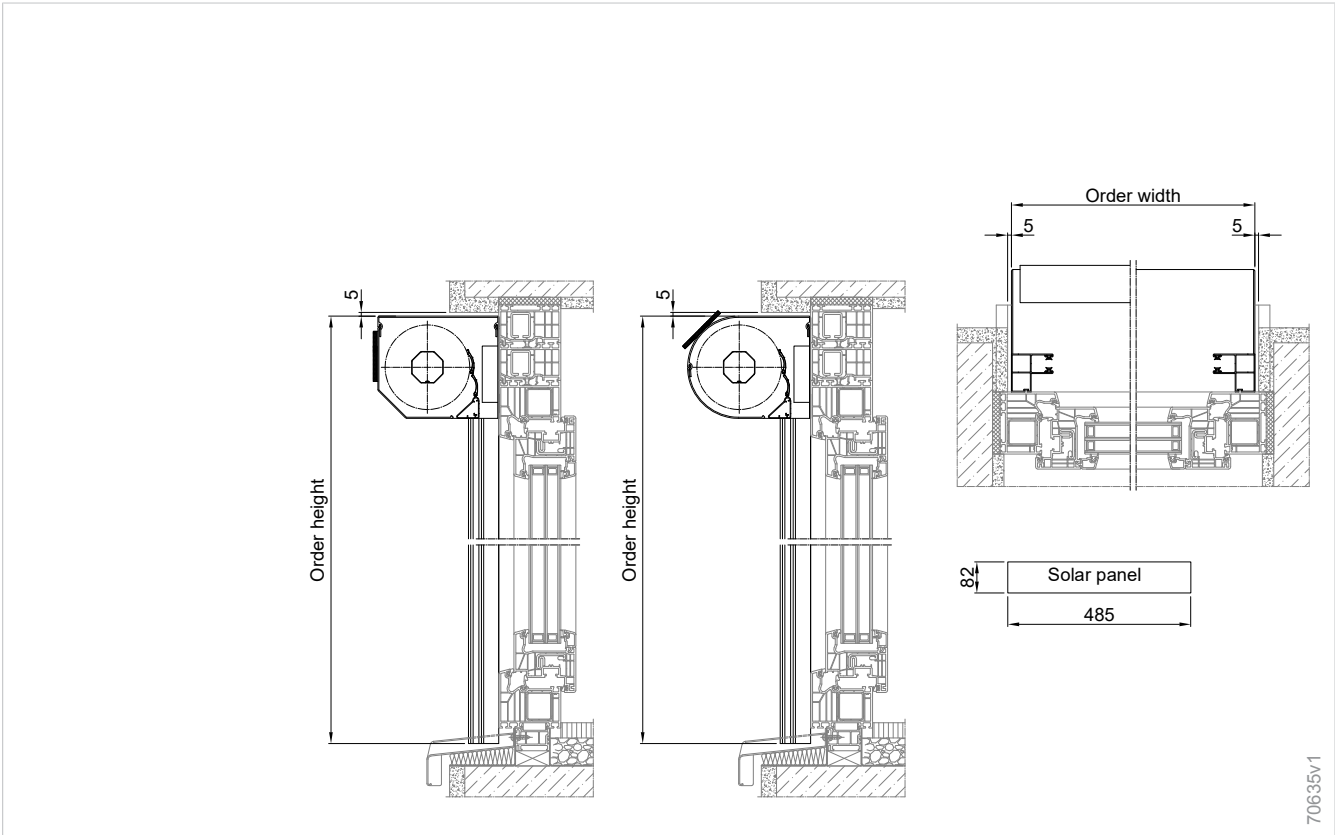


Planning

Front-mounted roller shutters

Top-mounted roller shutters

Front-mounted roller shutter V10 with solar drive



Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Front-mounted roller shutters  
<https://docs.warema.com/1.1313.9>



# Contents

## Top-mounted roller shutters

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| Top-mounted roller shutter for new buildings NA-RO inspection access outside..... | 126 |
| Top-mounted roller shutters AU-RO.....                                            | 160 |
| Renovation roller shutters RE-RO.....                                             | 186 |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



## Top-mounted roller shutters

### Top-mounted roller shutter for new buildings NA-RO inspection access inside

#### Economical

Box is fixed to the window and is installed at the same time as the window - no lintel structure is required above the window.

#### Sophisticated

Designed according to the requirements of masonry or clinker brick construction - perfectly combinable with external venetian blinds thanks to the same box sizes.

#### Stable

Safe diversion of wind loads possible by integrating structural consoles.



#### Construction limit values

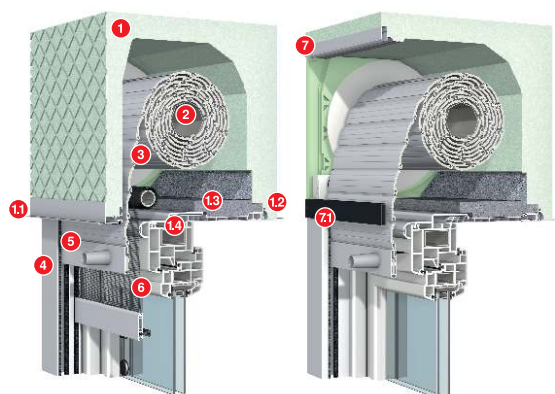
|                                   |                   |
|-----------------------------------|-------------------|
| Maximum order width               | 3500 mm           |
| Maximum order height              | 3500 mm           |
| Maximum order area                | 10 m <sup>2</sup> |
| Maximum order width of group unit | 5000 mm           |



#### Product characteristics

- Box for masonry or clinker construction
- Inspection access inside
- Insect screen, optional

## Components



|     |                               |     |                              |
|-----|-------------------------------|-----|------------------------------|
| 1   | Box                           | 3   | Roller shutter curtain       |
| 1.1 | Plaster base profile, outside | 4   | Guide rails                  |
| 1.2 | Plaster base profile, inside  | 5   | Bottom rail                  |
| 1.3 | Inspection cover              | 6   | Insect screen roller blind   |
| 1.4 | Window connection             | 7   | Box for clinker construction |
| 2   | Shaft                         | 7.1 | Reinforcement profile        |

### Box

#### Masonry box

|                     |                                             |
|---------------------|---------------------------------------------|
| Material            | Polyester                                   |
| Material colour     | Green                                       |
| Box sizes           | 240x250, 300x250, 365x250, 300x300, 365x300 |
| Unwinding direction | Right-rolling blind                         |

#### Box fastening:

- For box widths of 1500 mm and greater, the box is fitted with perforated tape for extra fixing to the structure.
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

+ see "Box fastening via perforated tapes", Page 111

#### + Side cover

#### Side covers for top-mounted systems for new buildings

|                 |                                 |
|-----------------|---------------------------------|
| Material        | Plastic, injection moulded part |
| Material colour | Green                           |

Incl. mounting sleeve for fastening of the connecting tab.

#### + Inspection cover

#### Inspection cover NA-RO, inspection from inside

|                 |                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------|
| Material        | Plastic, hollow chamber profile                                                                      |
| Surface         | Plastic                                                                                              |
| Material colour | White                                                                                                |
| Material, notes | Inspection with bonded insulation made of expanded polystyrene (Neopor®) and lateral plaster pieces. |

Inspection cover incl. lateral plaster piece

#### + Plaster base profile

#### Plaster base profile, outside

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Plain               |
| Optional surface | Powder-coated       |
| Depth            | 13 mm               |

13 mm standard projection, can optionally be extended up to 80 mm.

#### Plaster base profile, inside

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Plain               |
| Depth    | 13 mm               |

Covered with PVC strip, white

+ see "Masonry box", Page 101

#### Box for clinker construction

|                     |                           |
|---------------------|---------------------------|
| Material            | Polyester                 |
| Material colour     | Green                     |
| Box sizes           | 240x250, 300x250, 300x300 |
| Unwinding direction | Right-rolling blind       |

#### Box fastening:

- For box widths of 1500 mm and greater, the box is fitted with perforated tape for extra fixing to the structure.
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

#### + Side cover

#### Side covers for top-mounted systems for new buildings

|                 |                                 |
|-----------------|---------------------------------|
| Material        | Plastic, injection moulded part |
| Material colour | Green                           |

Incl. mounting sleeve for fastening of the connecting tab.

#### + Inspection cover

#### Inspection cover NA-RO, inspection from inside

|                 |                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------|
| Material        | Plastic, hollow chamber profile                                                                      |
| Surface         | Plastic                                                                                              |
| Material colour | White                                                                                                |
| Material, notes | Inspection with bonded insulation made of expanded polystyrene (Neopor®) and lateral plaster pieces. |

Inspection cover incl. lateral plaster piece

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## + Reinforcement profile

### Reinforcement profile, box for clinker construction

|                 |                                                                                                                                                                    |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium                                                                                                                                                          |
| Material colour | Black                                                                                                                                                              |
| Material, notes | A fibre board made of Phonotherm® is also available as an option for the aluminium reinforcement profile (below with aluminium end profile, powder-coated, black). |

## + Plaster base profile

### Plaster base profile, inside

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Plain               |
| Depth    | 13 mm               |

Covered with PVC strip, white

⊕ see "Box for clinker construction", Page 102

## Window connection

### Window connection via unwind strip

|                 |                                                                                        |
|-----------------|----------------------------------------------------------------------------------------|
| Material        | Plastic                                                                                |
| Surface         | Plastic                                                                                |
| Material colour | White                                                                                  |
| Material, notes | Depending on the window type, unwind strips are in some cases also available in black. |

⊕ see "Window connection via unwind strip (standard fixing)", Page 102

## Window connection, optional

### Clip fixing, plastic

|                 |         |
|-----------------|---------|
| Material        | Plastic |
| Material colour | White   |

Comprised of base profile and window adapter profile made of plastic

### Clip fixing, steel

|          |             |
|----------|-------------|
| Material | Steel       |
| Surface  | Zinc-coated |

Comprised of plastic base profile, white, and window adapter profile made of steel

⊕ see "Window connection via clip fixing", Page 103

## Shaft

### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

## Roller shutter curtain

- A 36
- A 44
- A 53
- K 36
- K 52

Roller shutter curtain, optional:

- S 37

⊕ see "Roller shutter curtain", Page 274

## Bottom rail

- Flat end rail with sealing lip

End rail, optional:

- Two-piece 90°-profile end rails

⊕ see "End rails", Page 322

## Guide variants

- Rail guidance

## Guide rail

- Guide rail 60-51, plastic (white), without offset
- Guide rail 35-51, plastic (white), 25 mm offset

Guide rail, optional:

- Guide rail 60-47, aluminium, without offset
- Guide rail 40-47, aluminium, 20 mm offset

⊕ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

Basic motor, optional:

- WAREMA SecuKit, motor with additional belt operation
- Motor with additional collapsible crank ZHK
- Motor with battery module

### Radio motor, optional

- WMS Radio motor type WMS-RP inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RP incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with internal gear
- Vertical drive outlet
- Horizontal drive outlet

### Gear

- Crank type 1, crank
- Crank type 2, bevel gear

### Belt

- Belt, 14 mm
- Vertical drive outlet
- Horizontal drive outlet

Belt, optional:

- Belt, 23 mm (only in connection with box extension; note limited order height, see Chapter "Drives")

➤ see "Drive variants", Page 329

## Colours

- White
- Colours for shutter profiles

Colours, optional:

- Colours for decor films
- WAREMA Colour World

➤ see "Colours", Page 12

## Insect screen

Insect screen, optional:

- Integrated insect screen roller blind
- Integrated insect screen swivel door

➤ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen
- WAREMA SecuKit
- Motor with additional collapsible crank ZHK
- Battery module UP

➤ see "Supplementary accessories", Page 235



## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum box width:** 5000 mm
- **Box with box width over 2500 mm:**
  - Roller shutter curtains are packaged separately with box widths of 3000 mm (masonry boxes) or 2500 mm (clinker construction boxes) or above, due to the total weight and handling.
  - This procedure also applies to group units with the stated widths.
- **Model with roller shutter curtain S37:** couplings or continuous boxes are not possible.
- **Maximum number of single roller shutter curtains within a group unit:** 3

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 5000 mm                           | 18 m <sup>2</sup>                |
| A 44                                                   |                     | 3500 mm             | 3500 mm              | 10 m <sup>2</sup>  | 5000 mm                           | 17 m <sup>2</sup>                |
| A 53                                                   |                     | 3500 mm             | 3100 mm              | 10 m <sup>2</sup>  | 5000 mm                           | 13 m <sup>2</sup>                |
| S 37                                                   |                     | 3000 mm             | 2800 mm              | 5 m <sup>2</sup>   | 5000 mm                           | 5 m <sup>2</sup>                 |
| K 36                                                   |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 5000 mm                           | 9,6 m <sup>2</sup>               |
| K 52                                                   |                     | 2500 mm             | 2800 mm              | 5 m <sup>2</sup>   | 5000 mm                           | 10 m <sup>2</sup>                |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 685 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 700 mm              |                     |                      |                    |                                   |                                  |
| Belt / Crank                                           | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 750 mm              | 2000 mm             | 2700 mm              | 5 m <sup>2</sup>   |                                   |                                  |
| Insect screen roller blind without soft-raise function | 580 mm              | 2000 mm             | 2700 mm              | 5 m <sup>2</sup>   |                                   |                                  |

## Maximum order area per operating class

| Configuration variants                         | Operating classes  |                    |                    |
|------------------------------------------------|--------------------|--------------------|--------------------|
|                                                | Design-related     | Operating class 1  | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                    |                    |                    |
| A 36 + Motor                                   | 18 m <sup>2</sup>  |                    |                    |
| A 44 + Motor                                   | 17 m <sup>2</sup>  |                    |                    |
| A 53 + Motor                                   | 13 m <sup>2</sup>  |                    |                    |
| S 37 + Motor                                   | 5 m <sup>2</sup>   |                    |                    |
| K 36 + Motor                                   | 9,6 m <sup>2</sup> |                    |                    |
| K 52 + Motor                                   | 10 m <sup>2</sup>  |                    |                    |
| A 36 + Crank type 1                            | 5,0 m <sup>2</sup> | 5,0 m <sup>2</sup> | 3,0 m <sup>2</sup> |
| A 44 + Crank type 1                            | 5,0 m <sup>2</sup> | 5,0 m <sup>2</sup> | 2,5 m <sup>2</sup> |
| A 53 + Crank type 1                            | 4 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 36 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 52 + Crank type 1                            | 3,5 m <sup>2</sup> | 3,5 m <sup>2</sup> | 2 m <sup>2</sup>   |
| A 36 + Crank type 2                            | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 5,5 m <sup>2</sup> |
| A 44 + Crank type 2                            | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| A 53 + Crank type 2                            | 7 m <sup>2</sup>   | 7 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| S 37 + Crank type 2                            | 2,9 m <sup>2</sup> | 2,9 m <sup>2</sup> | 2 m <sup>2</sup>   |

| Configuration variants | Operating classes  |                    |                    |
|------------------------|--------------------|--------------------|--------------------|
|                        | Design-related     | Operating class 1  | Operating class 2  |
| K 36 + Crank type 2    | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| K 52 + Crank type 2    | 6,5 m <sup>2</sup> | 6 m <sup>2</sup>   | 3,5 m <sup>2</sup> |
| A 36 + Internal belt   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 44 + Internal belt   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 53 + Internal belt   | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 36 + Internal belt   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 52 + Internal belt   | 2,5 m <sup>2</sup> | 1,5 m <sup>2</sup> | 1 m <sup>2</sup>   |

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

### Maximum order height per box size

| Configuration variants                                     | Box sizes |         |         |         |         |
|------------------------------------------------------------|-----------|---------|---------|---------|---------|
|                                                            | 240x250   | 300x250 | 365x250 | 300x300 | 365x300 |
| <b>Box + Roller shutter curtain</b>                        |           |         |         |         |         |
| Masonry box + A 36                                         | 3250 mm   | 3250 mm | 3250 mm | 3500 mm | 3500 mm |
| Masonry box + A 44                                         | 2500 mm   | 2500 mm | 2500 mm | 3500 mm | 3500 mm |
| Masonry box + A 53                                         | 2000 mm   | 2000 mm | 2000 mm | 3100 mm | 3100 mm |
| Masonry box + S 37                                         | 2650 mm   | 2650 mm | 2650 mm | 2800 mm | 2800 mm |
| Masonry box + K 36                                         | 3000 mm   | 3000 mm | 3000 mm | 3000 mm | 3000 mm |
| Masonry box + K 52                                         | 2500 mm   | 2500 mm | 2500 mm | 2800 mm | 2800 mm |
| Box for clinker construction + A 36                        | 3250 mm   | 3250 mm |         | 3500 mm |         |
| Box for clinker construction + A 44                        | 2500 mm   | 2500 mm |         | 3500 mm |         |
| Box for clinker construction + A 53                        | 2000 mm   | 2000 mm |         | 3100 mm |         |
| Box for clinker construction + S 37                        | 2800 mm   | 2800 mm |         | 2800 mm |         |
| Box for clinker construction + K 36                        | 3000 mm   | 3000 mm |         | 3000 mm |         |
| Box for clinker construction + K 52                        | 2500 mm   | 2500 mm |         | 2800 mm |         |
| <b>Box + Roller shutter curtain + Insect screen</b>        |           |         |         |         |         |
| Masonry box + K 52 + Integrated insect screen roller blind | 2000 mm   |         |         |         |         |

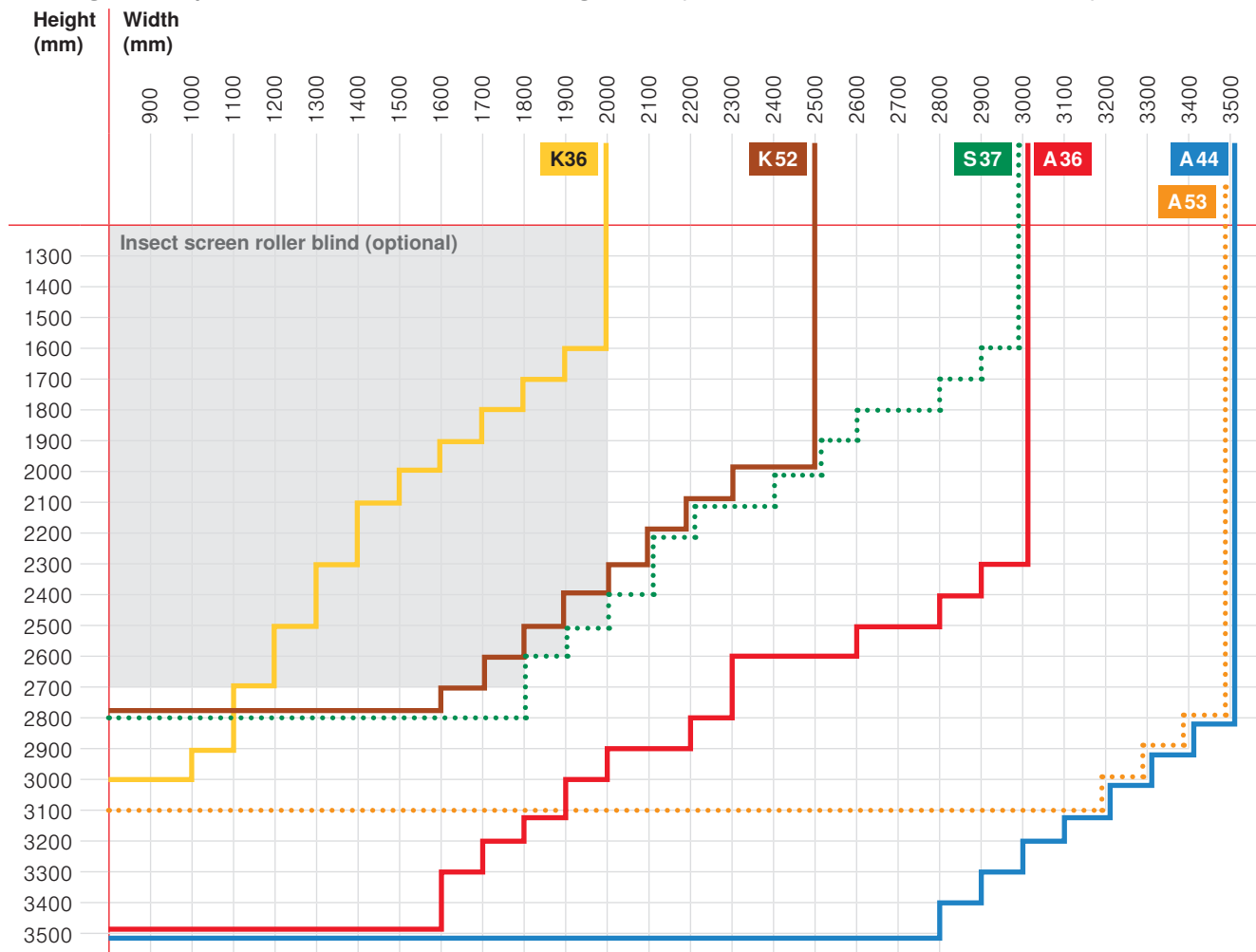
The use of an integrated insect screen roller blind only has an effect on the maximum height of each box size with the configuration variant masonry box 240x250 and shutter profile K 52.

## Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2850 mm | 2775 mm | 2605 mm | 2275 mm | 1770 mm | 1105 mm |
| A 44                          | 3500 mm               | 3000 mm | 3000 mm | 3000 mm | 2625 mm | 2055 mm | 1285 mm |
| A 53                          | 3500 mm               | 3000 mm | 3000 mm | 3000 mm | 3000 mm | 2490 mm | 1790 mm |
| S 37                          | 3000 mm               | 3000 mm | 2920 mm | 2620 mm | 2170 mm | 1580 mm |         |
| K 36                          | 2000 mm               | 1800 mm | 1725 mm | 1520 mm | 1115 mm | 515 mm  |         |
| K 52                          | 2500 mm               | 2355 mm | 2285 mm | 2140 mm | 1855 mm | 1425 mm | 850 mm  |

Wind resistance class 1 generally applies to installed insect screen roller blinds.

Area diagram for top mounted roller shutter for new buildings NA-RO (maximum dimensions for individual areas)



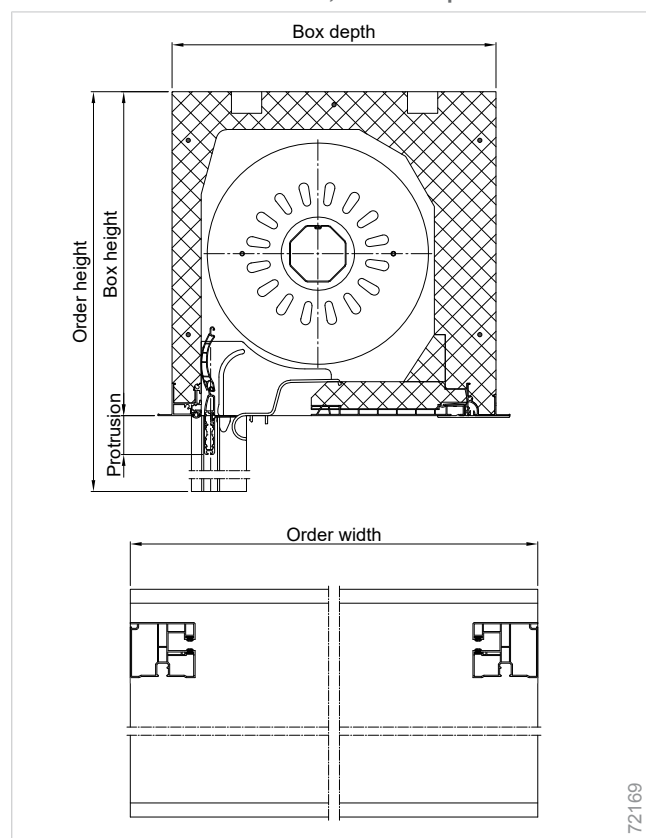
## Dimension determination

| Reference dimension | Dimension determination                              |
|---------------------|------------------------------------------------------|
| Order width         | = window frame width = box width                     |
| Order height        | Bottom edge of the guide rail to top edge of the box |
| Box height          | see box dimensions                                   |
| Box depth           | see box dimensions                                   |

- Operation side seen from inside
- Available information on window profile: manufacturer, type, window frame thickness
- Indicate desired box size.
- **Offsets:**
  - Note standard offsets for guide rails 35-51, 40-47 and 40-48.
  - Larger offsets and also offsets for guide rails with width 60 are possible, but exclusively for window connections with a clip fixing.

**Minimum distance between the box top edge and lintel: 10 mm**

Order dimension determination, NA-RO inspection from inside



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Box types

### Fixing:

- By bolting or clipping on the bottom of the window frame depending on window connection.
- Lateral fixing using connecting tabs which are fixed to the side cover using a premounted mounting sleeve.

### Box width above 1500 mm:

- The box is fitted as standard with perforated tape for extra fixing to the structure for box widths starting at 1500 mm (regardless of whether a single or group unit).
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

➕ see "Box fastening via perforated tapes", Page 111

### Group units:

- Ceiling fasteners required in the area of the middle rail for each centre situation, for which an additional surcharge must be calculated.
  - Masonry box: 2 ceiling fasteners per centre situation
  - Box for clinker construction: 1 ceiling fastener per centre situation
- Other additional ceiling fasteners are optionally available.

### Inspectability:

- Inspection cover and clip strip must be accessible at all times.
- Embedding of inspection panels: 33 mm from outer edge of window unit for motor drive, 10 mm for belt and crank

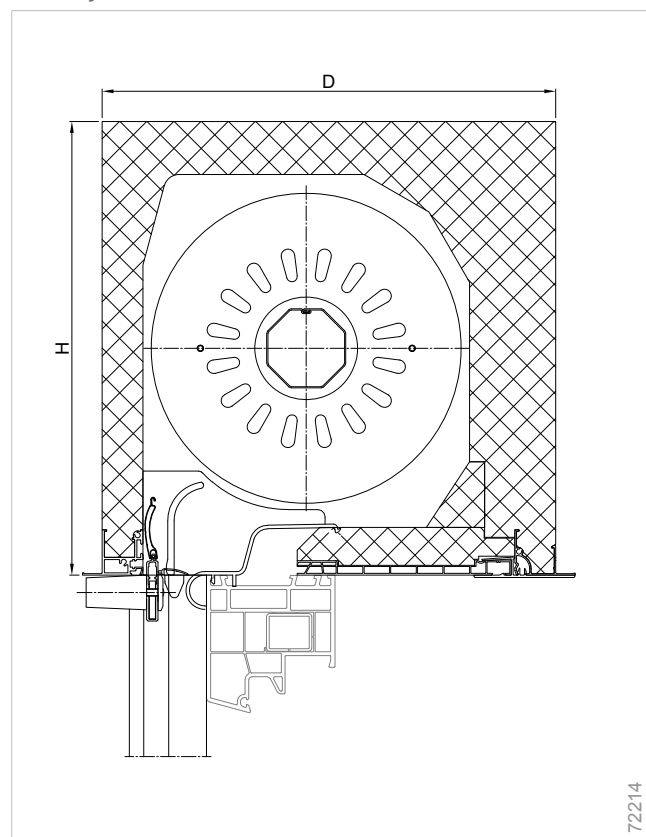
### Sound insulation improvement:

Inspection cover with sound absorbing insert available for improving sound insulation.

## Masonry box

| Box size | Depth D | Height H |
|----------|---------|----------|
| 240x250  | 240 mm  | 250 mm   |
| 300x250  | 300 mm  | 250 mm   |
| 365x250  | 365 mm  | 250 mm   |
| 300x300  | 300 mm  | 300 mm   |
| 365x300  | 365 mm  | 300 mm   |

## Masonry box



Planning

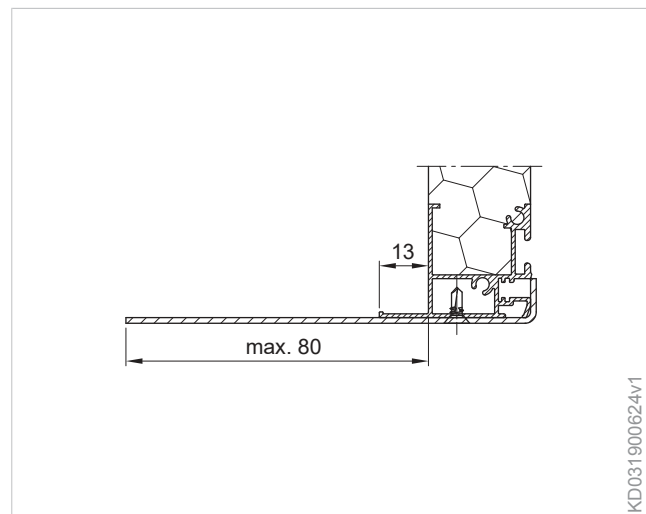
Front-mounted roller shutters

Top-mounted roller shutters

## Extension of external plaster base profile

- The extended plaster base profile can optionally be RAL powder-coated.
- The standard length plaster base profile (13 mm) is usually plain.

## Extension of plaster base profile outside



Shaft roller shutters

Supplementary accessories

Components

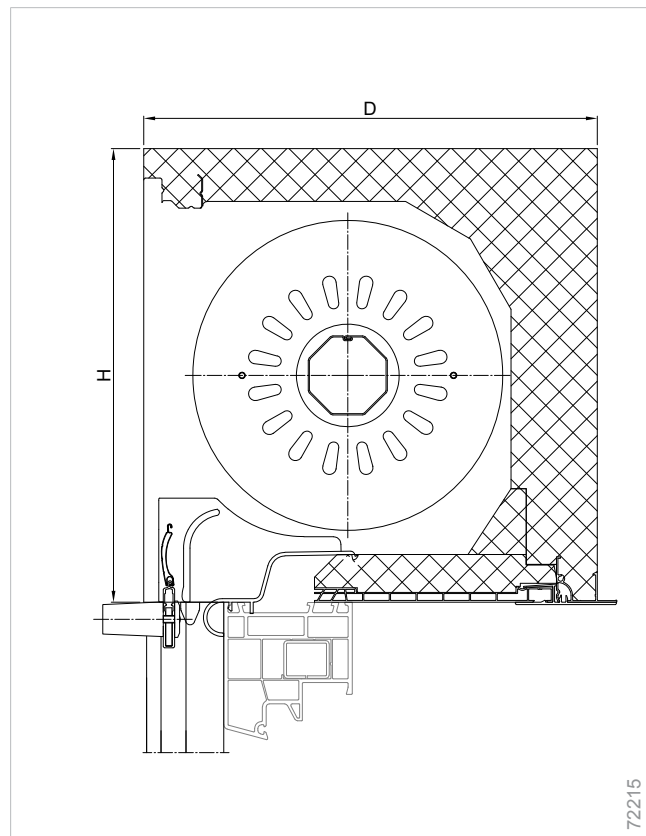
Drive variants

Standards

## Box for clinker construction

| Box size | Depth D | Height H |
|----------|---------|----------|
| 240x250  | 240 mm  | 250 mm   |
| 300x250  | 300 mm  | 250 mm   |
| 300x300  | 300 mm  | 300 mm   |

## Box for clinker construction



## Window connection, screw-fixed

### Window connection via unwind strip (standard fixing)

**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- Unwind strip made of plastic for clipping into position, white or black (for suitable plastic windows)
- All other windows with universal unwind strip for screwing into position, in white or black (for wood, aluminium and plastic windows without allocation)
- The web of the unwind strip lies on top of the inspection cover

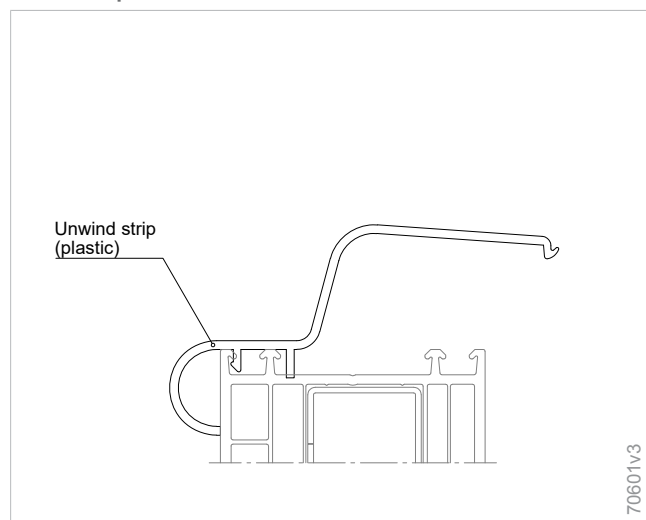
#### Maximum window frame thickness:

- Regardless of box size and drive
- The respective maximum dimension can be found in Drive details

#### Fixing:

- The unwind strip is clipped and/or screwed into the window profile depending on the model.

### NA-RO inspection from inside - Standard window connection



## Window connection via clip fixing

### Clip fixing, plastic

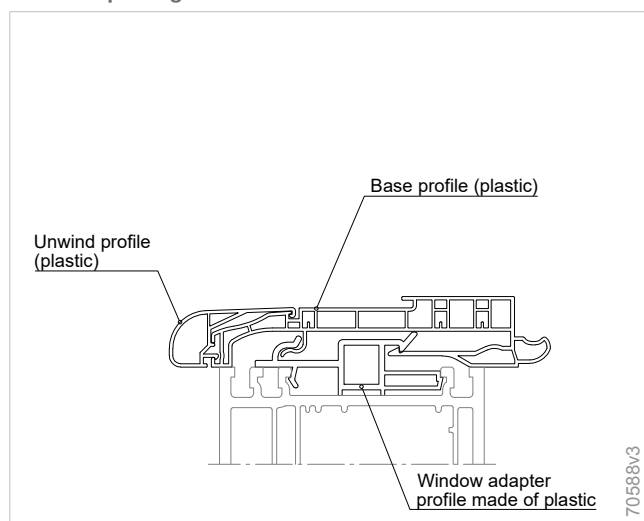
**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- The plastic window adapter profile, white, is clipped into the respective plastic window or screwed in via a universal window adapter profile for all other windows.
- Plastic base profile, white: Premounted between the side covers of the box
- Inspection cover snaps into base profile
- Sliding profile, plastic, white: Connected to the base profile ex works
- Available for box sizes 300 and 365

**Can be used for the following window frame thicknesses:**

- 70–92 mm

### Plastic clip fixing for window connection



Planning

Front-mounted roller shutters

Top-mounted roller shutters

### Clip fixing, steel

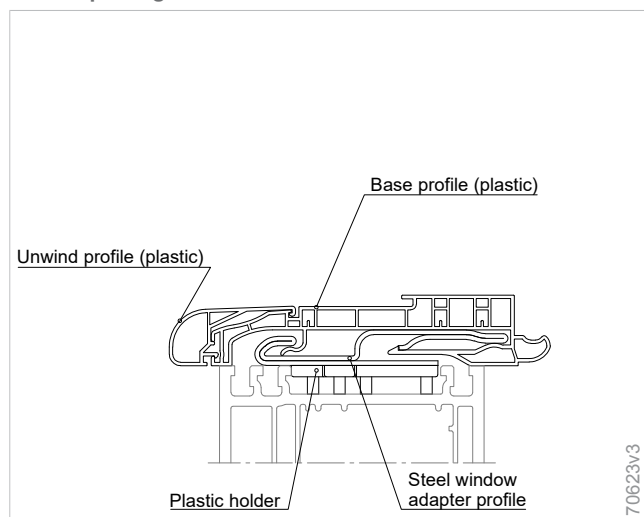
**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- Recommended for order widths of 1600 mm or greater for increased window rigidity
- Short and long models available
- The steel window adapter profile is screwed directly onto the window frame from above, aligned using plastic holder, available for all common window profiles (the window adapter profile is bolted directly onto the window frame for smooth windows or windows without allocation).
- Area moment of inertia, steel window adapter profile:
  - Long profile  $I_y = 8.3 \text{ cm}^4$
  - Short profile  $I_y = 2.4 \text{ cm}^4$
- Plastic base profile, white: Premounted between the side covers of the box
- Sliding profile, plastic, white: Connected to the base profile ex works
- Inspection cover snaps into base profile
- Available for box sizes 300 and 365

**Can be used for the following window frame thicknesses:**

- 70–92 mm (regardless of whether profile is long or short)

### Steel clip fixing for window connection



Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



## Additional product information

### Drive details, motor

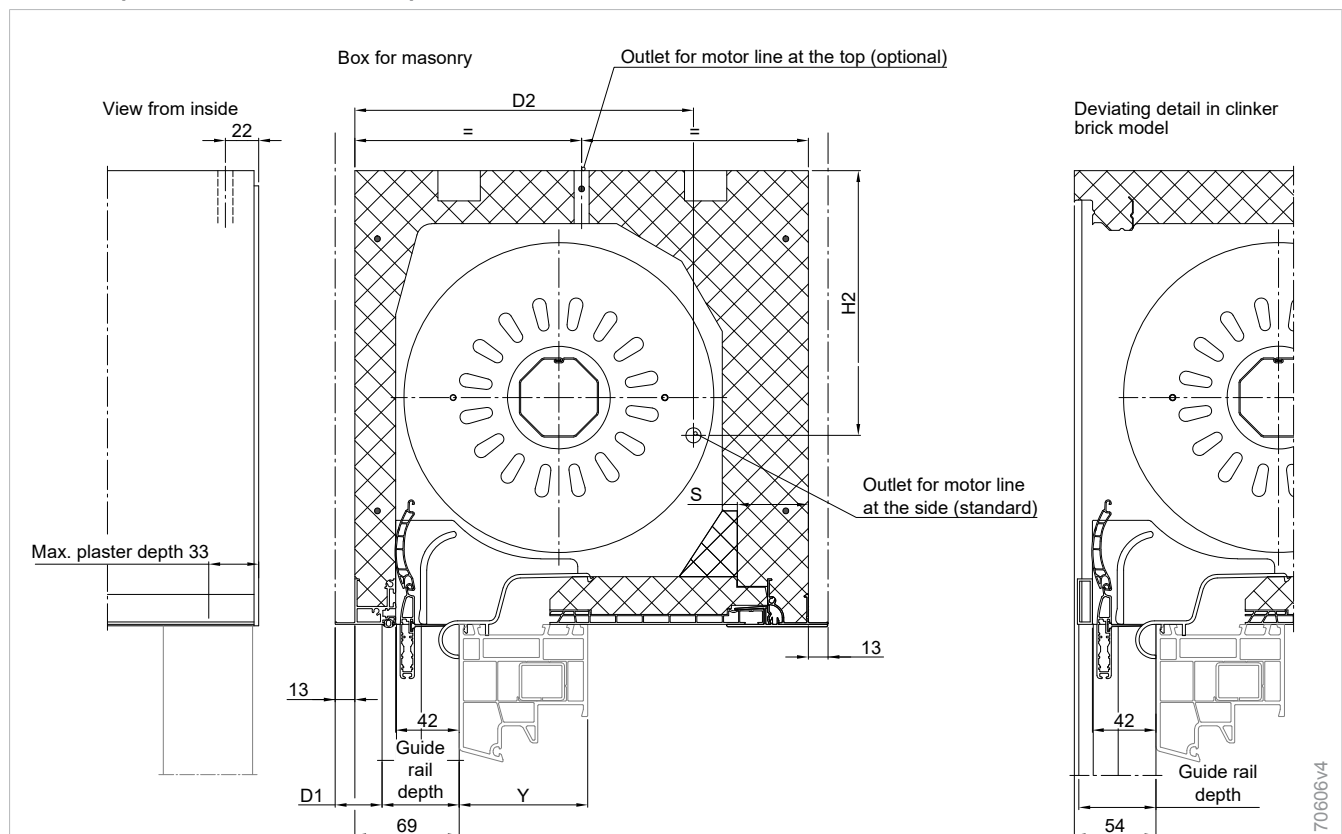
#### Dimensioning of outlet for motor line

|                              | Dimension S | Dimension Y max. | Dimension T2 | Dimension H2 |
|------------------------------|-------------|------------------|--------------|--------------|
| Box for masonry              |             |                  |              |              |
| 240x250                      | 27          | 79               | 199          | 151          |
| 300x250                      | 47          | 119              | 224          | 127          |
| 365x250                      | 112         | 135              | 224          | 127          |
| 300x300                      | 47          | 119              | 224          | 175          |
| 365x300                      | 112         | 135              | 224          | 175          |
| Box for clinker construction |             |                  |              |              |
| 240x250                      | 27          | 95               | 199          | 151          |
| 300x250                      | 47          | 135              | 224          | 127          |
| 300x300                      | 47          | 135              | 224          | 175          |

#### Product variant with end stopper:

- Aluminium guide rails: no end stopper
- Plastic guide rails: end stopper.

#### NA-RO, inspection from inside, motor operation drive details



Dimension T1: Plastic guide rails, 31 mm / aluminium guide rails, 35 mm

Guide rail depth: Plastic guide rails, 51 mm / aluminium guide rails, 47 mm

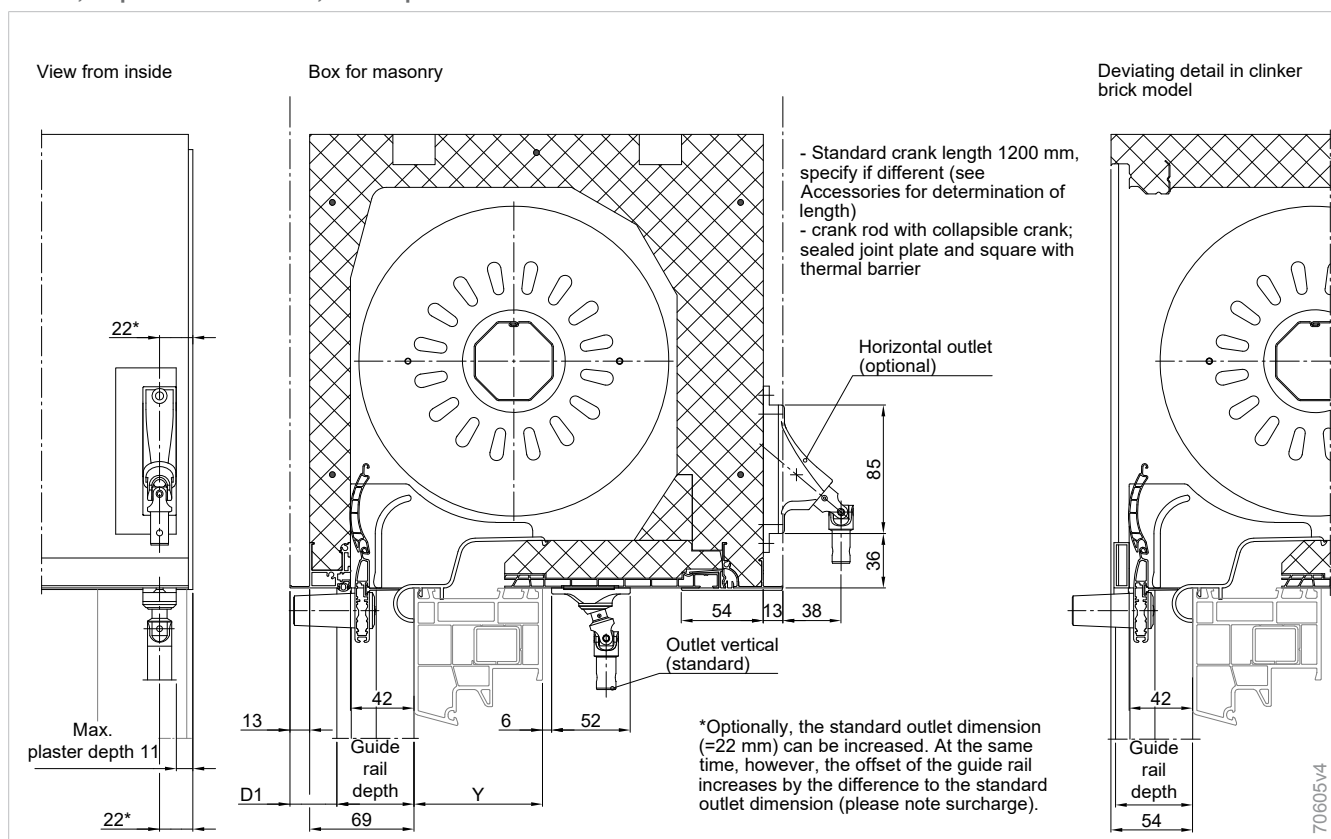
## Drive details, crank

### Dimensioning of vertical gear outlet, crank operation

|                              | Dimension X max, crank type 1 | Dimension X max, crank type 2 |
|------------------------------|-------------------------------|-------------------------------|
| Box for masonry              |                               |                               |
| 240x250                      | 79                            | 70                            |
| 300x250                      | 119                           | 119                           |
| 365x250                      | 119                           | 119                           |
| 300x300                      | 119                           | 119                           |
| 365x300                      | 119                           | 119                           |
| Box for clinker construction |                               |                               |
| 240x250                      | 95                            | 86                            |
| 300x250                      | 135                           | 135                           |
| 300x300                      | 135                           | 135                           |

**Dimension Y max for horizontal gear outlet:** values for motor operation apply here.

### NA-RO, inspection from inside, crank operation drive details



Dimension T1: Plastic guide rails, 31 mm / aluminium guide rails, 35 mm

Guide rail depth: Plastic guide rails, 51 mm / aluminium guide rails, 47 mm

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

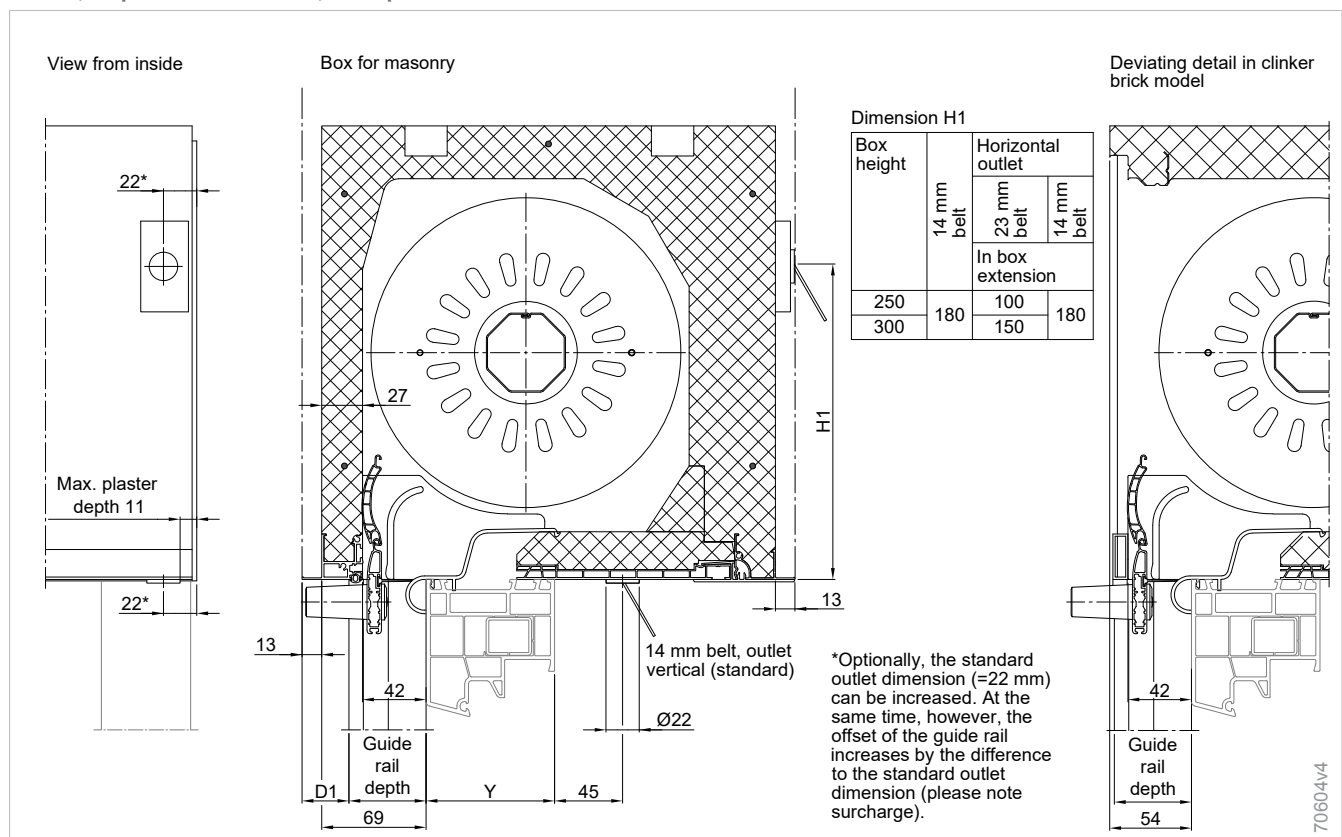
Standards

## Drive details, belt

### Dimensioning of belt outlet, vertical and horizontal outlet

|                              | Dimension Y max, vertical belt outlet |
|------------------------------|---------------------------------------|
| Box for masonry              |                                       |
| 240x250                      | 79                                    |
| 300x250                      | 119                                   |
| 365x250                      | 119                                   |
| 300x300                      | 119                                   |
| 365x300                      | 119                                   |
| Box for clinker construction |                                       |
| 240x250                      | 95                                    |
| 300x250                      | 135                                   |
| 300x300                      | 135                                   |

### NA-RO, inspection from inside, belt operation drive details



Dimension T1: Plastic guide rails, 31 mm / aluminium guide rails, 35 mm

Guide rail depth: Plastic guide rails, 51 mm / aluminium guide rails, 47 mm

## Group units

Multi-part roller shutters with continuous boxes and individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** always seen from inside, from left to right
- **Beginning and end position:** please indicate on order form
  - 2-part units: beginning position – end position
  - 3-part units: beginning position – middle position – end position

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

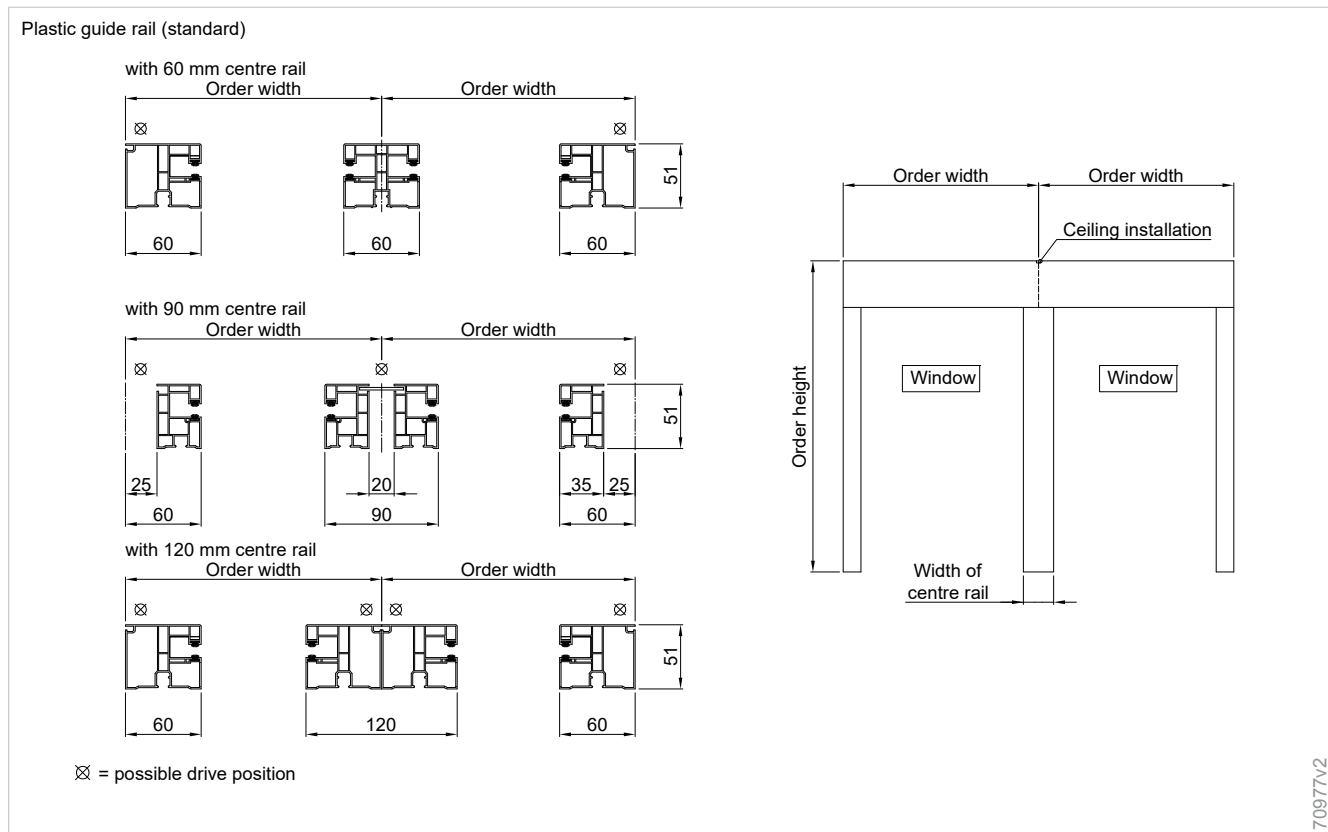
Standards

- Maximum continuous box width: 5000 mm
- Maximum number of individual roller shutter curtains within a continuous box: 3
- The specified offsets are minimum offsets
- Tabs are compulsory depending on the centre situation (note surcharge!)
  - For masonry boxes: two pieces (for inner and outer sides of the box; the tabs are each positioned on the outside of the box)
  - For clinker brick boxes: one piece (for inner side of box)

Coupling of roller shutter curtains:

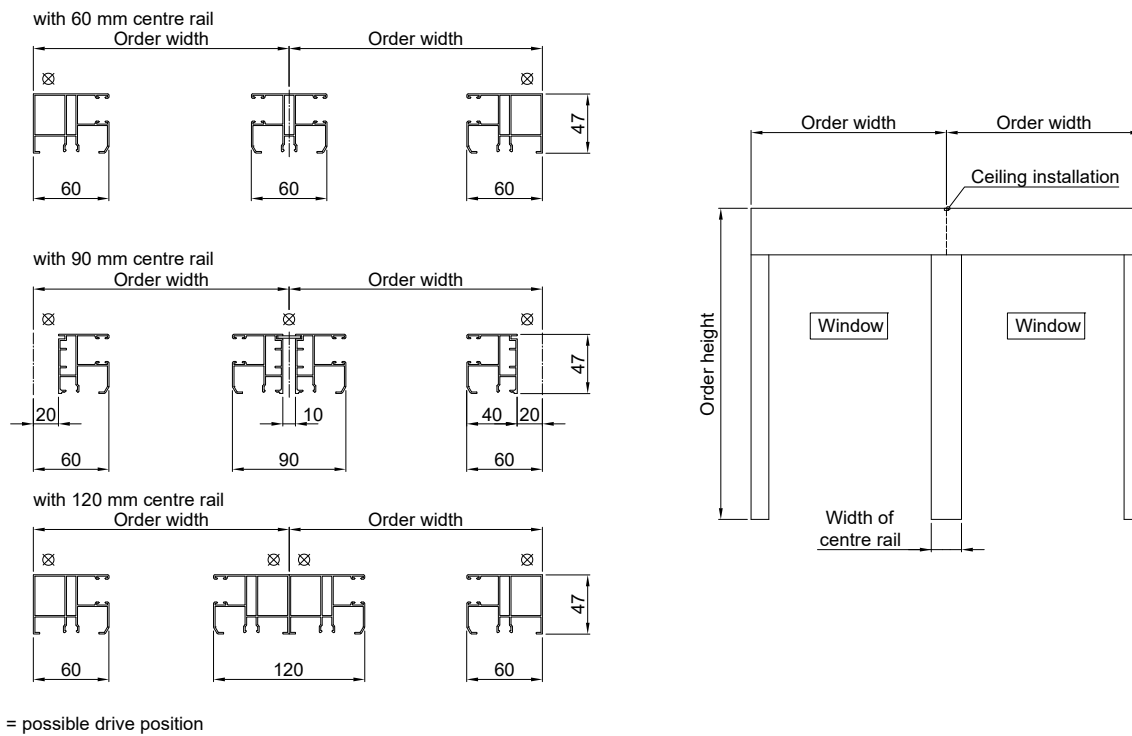
- Max. 3 roller shutter curtains can be coupled, taking the max. drive areas into consideration
- When using the:
  - Size 60 central middle rail, a drive is not possible (drives must be located externally)
  - Size 90 central middle rail, a maximum of 1 drive is possible
  - Size 120 central middle rail, 2 drives are possible

### Order data for group units (same height units)



## Order data for group units (same height units)

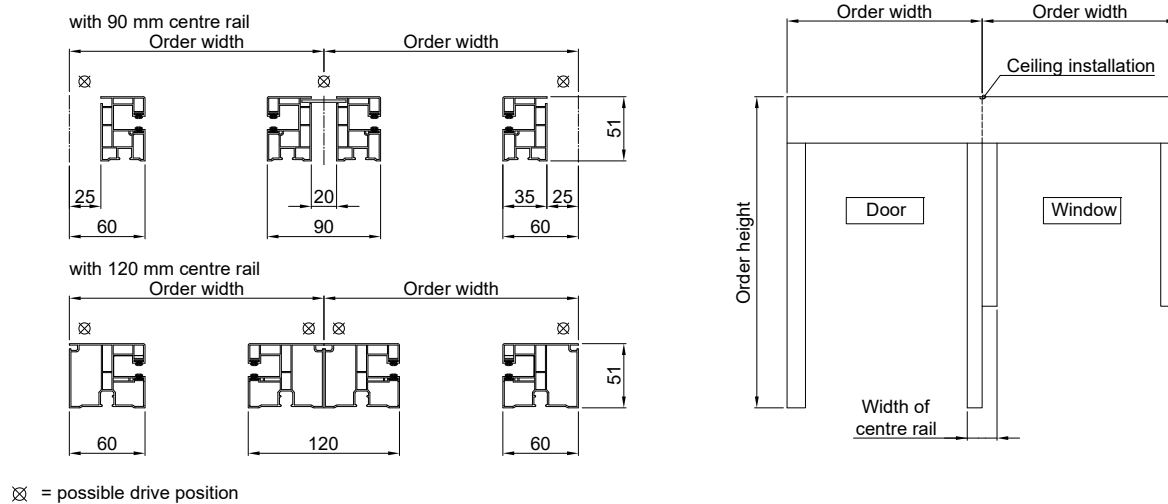
### Aluminium guide rail



70978v1

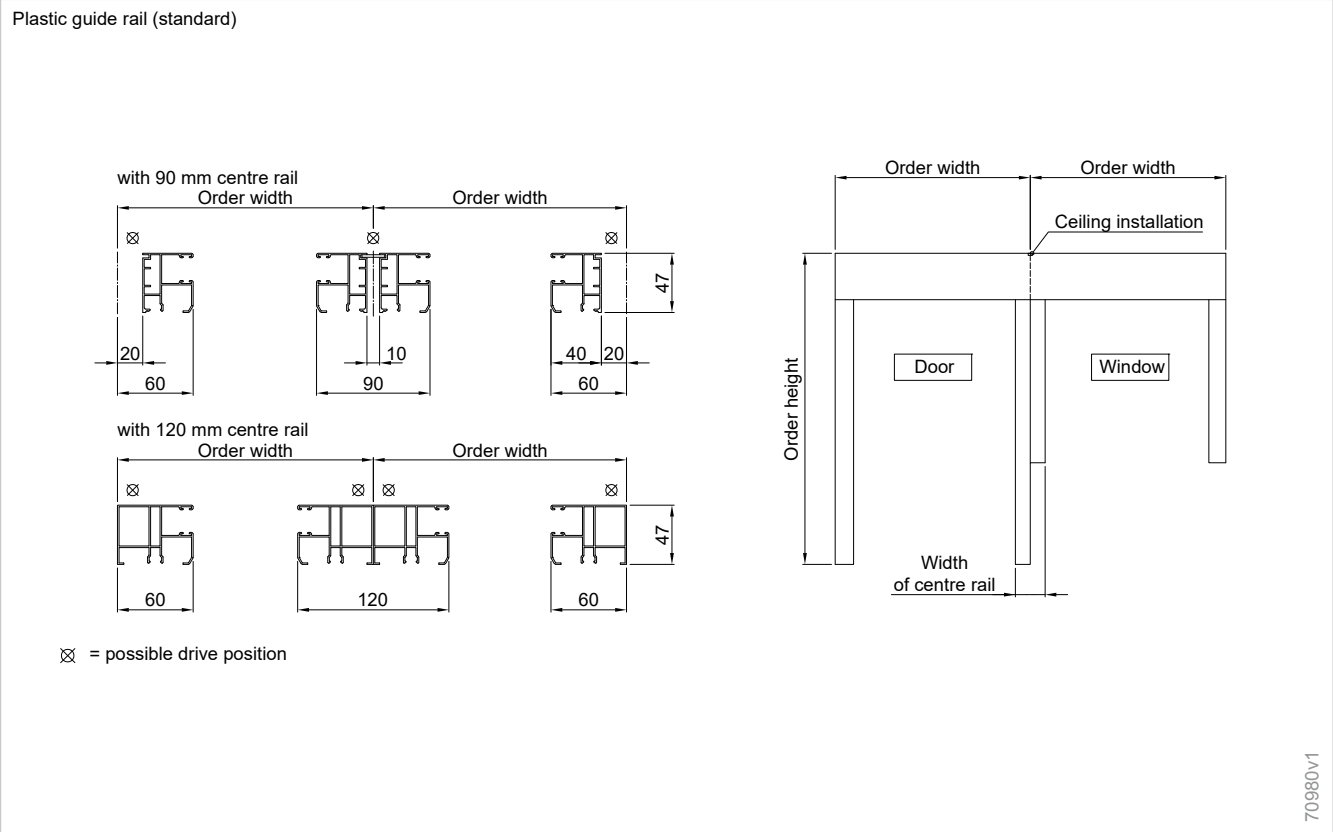
## Order data for group units (door/window combinations)

### Plastic guide rail (standard)



70979v2

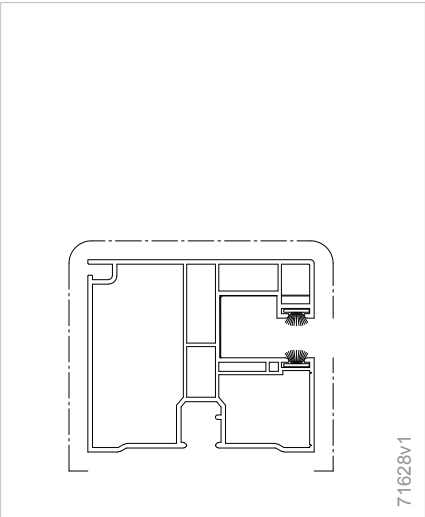
# Order data for group units (door/window combinations)



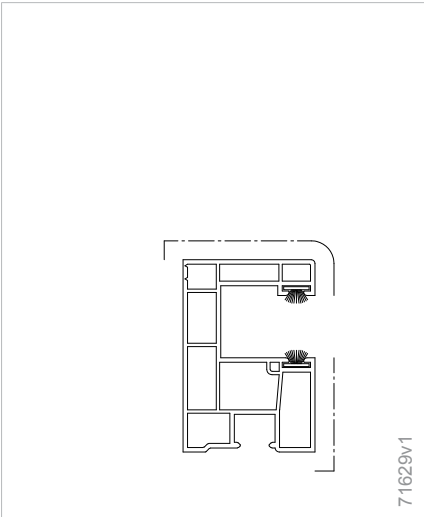
## Laminated guide rails

To optimally match the appearance of the sun shading system to the on-site laminated plastic windows, visible plastic parts of the sun shading system can optionally be supplied in a laminated design. 8 standard decor films and many special decor films are available to choose from.

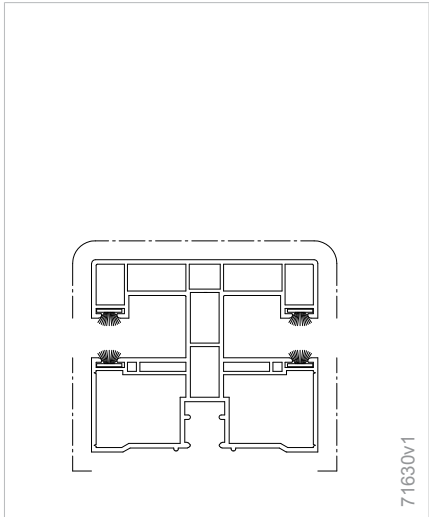
### Guide rail 60-51, laminated areas



### Guide rail 35-51, laminated areas



### Middle rail 60-51, laminated areas



+ see "Colours for decor films", Page 21

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Integrated insect screen roller blind (optional)

### Construction limit values with integrated insect screen roller blind

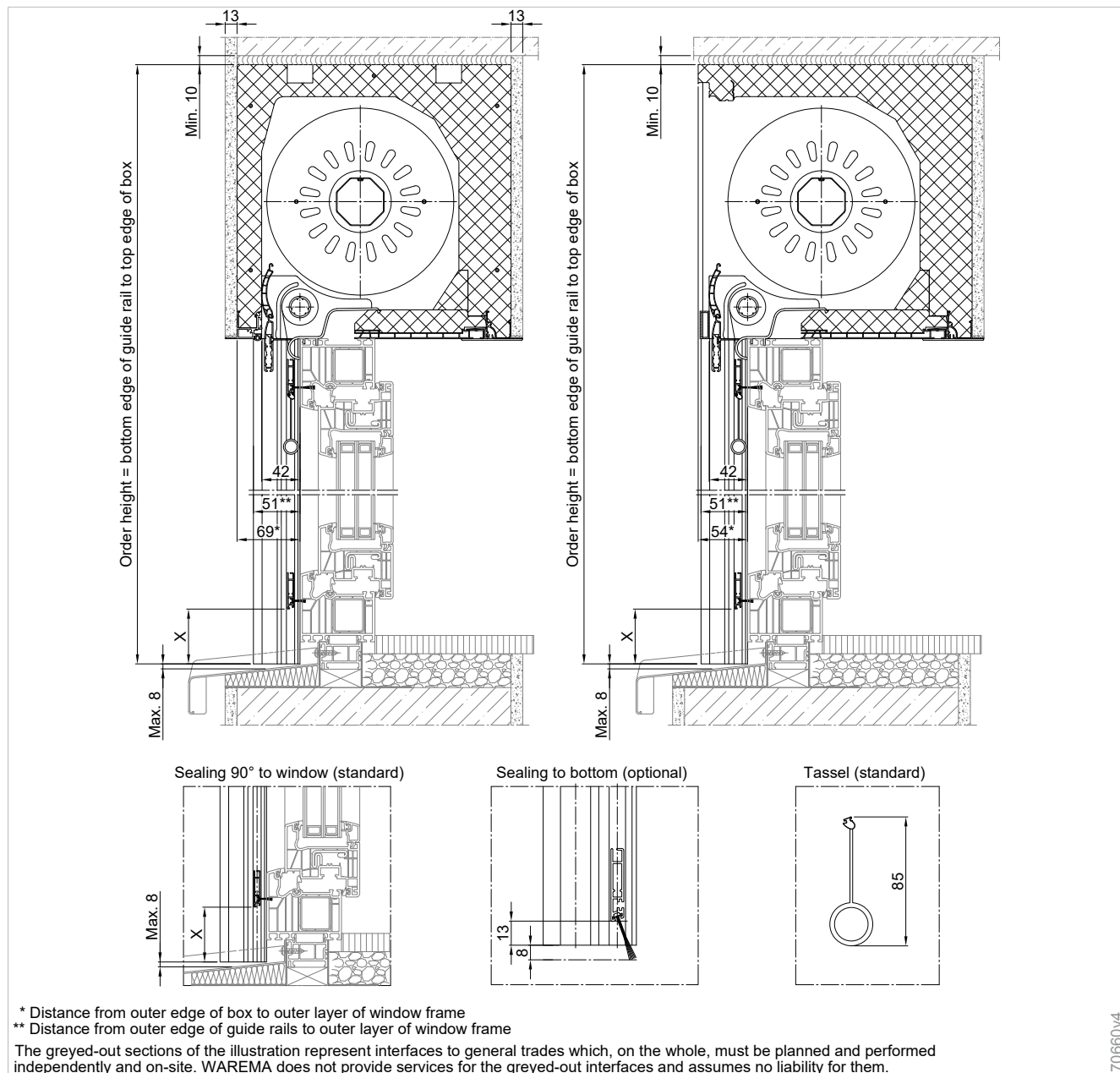
| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 750 mm        | 2000 mm       | -              | 2700 mm        | 5.0 m <sup>2</sup> |

#### Type-dependent limitations:

We supply insect screen guide rails C0 anodised as standard.

**Drawings for top-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.**

### NA-RO, inspection from inside, with integrated insect screen roller blind



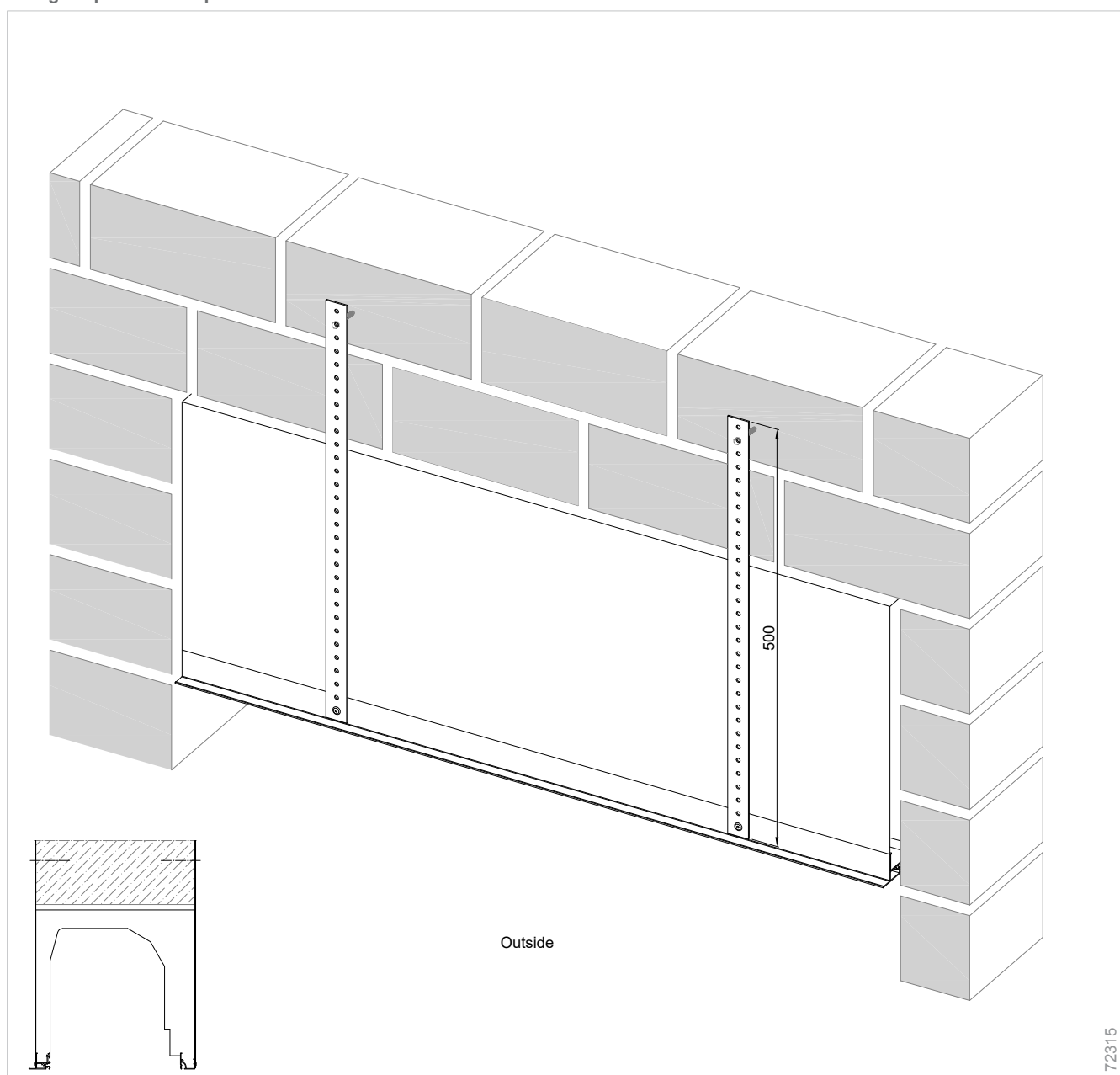
+ see "Integrated insect screen", Page 246

70660v4

## Box fastening via perforated tapes

- Perforated tapes are used as standard with a box width of 1500 mm or greater.
  - 2 or 3 perforated tapes are used respectively on each side for a box width of 3000 mm or 4500 mm or greater.
  - Perforated tape is located on the side cover to the inside and on the outside of the box.
  - Perforated tape length: 500 mm
- If the use of perforated tapes is not possible, e.g. in intricate ceiling constructions, then they can be replaced by the customer with ceiling fasteners (please note surcharge for ceiling installation).
  - Perforated tapes only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

### Fixing via perforated tape

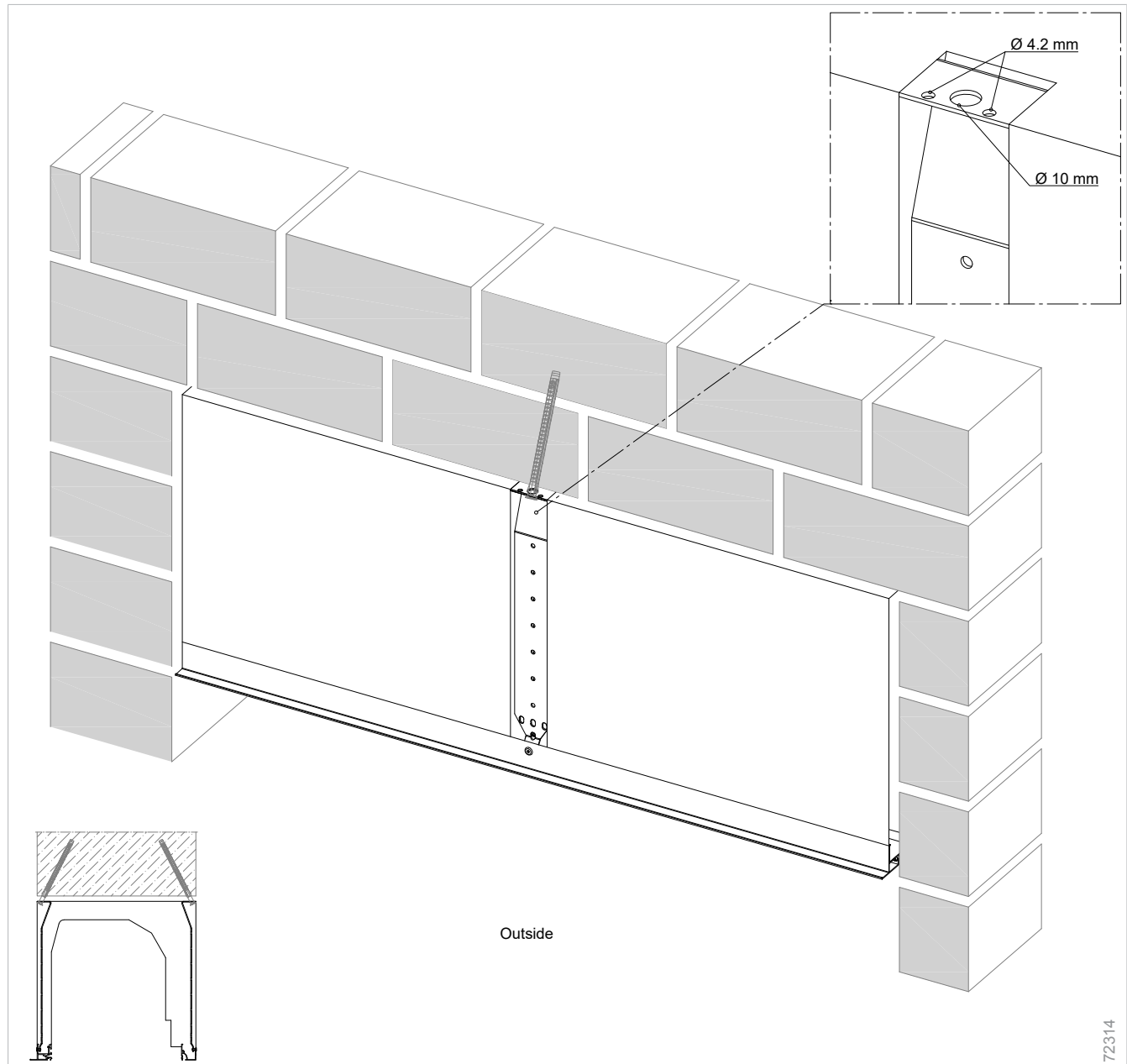




## Box fastening via ceiling fasteners

- Top-mounted boxes for new buildings can be designed as an alternative to or in addition to the perforated tapes with ceiling fasteners on request.
  - Please note the surcharge for each ceiling fastener.
- To order a model with a ceiling fasteners, please use the supplemental Box Accessories order form, art. no. 2010110.
  - Ceiling fasteners only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

### Fixing via ceiling installation



72314

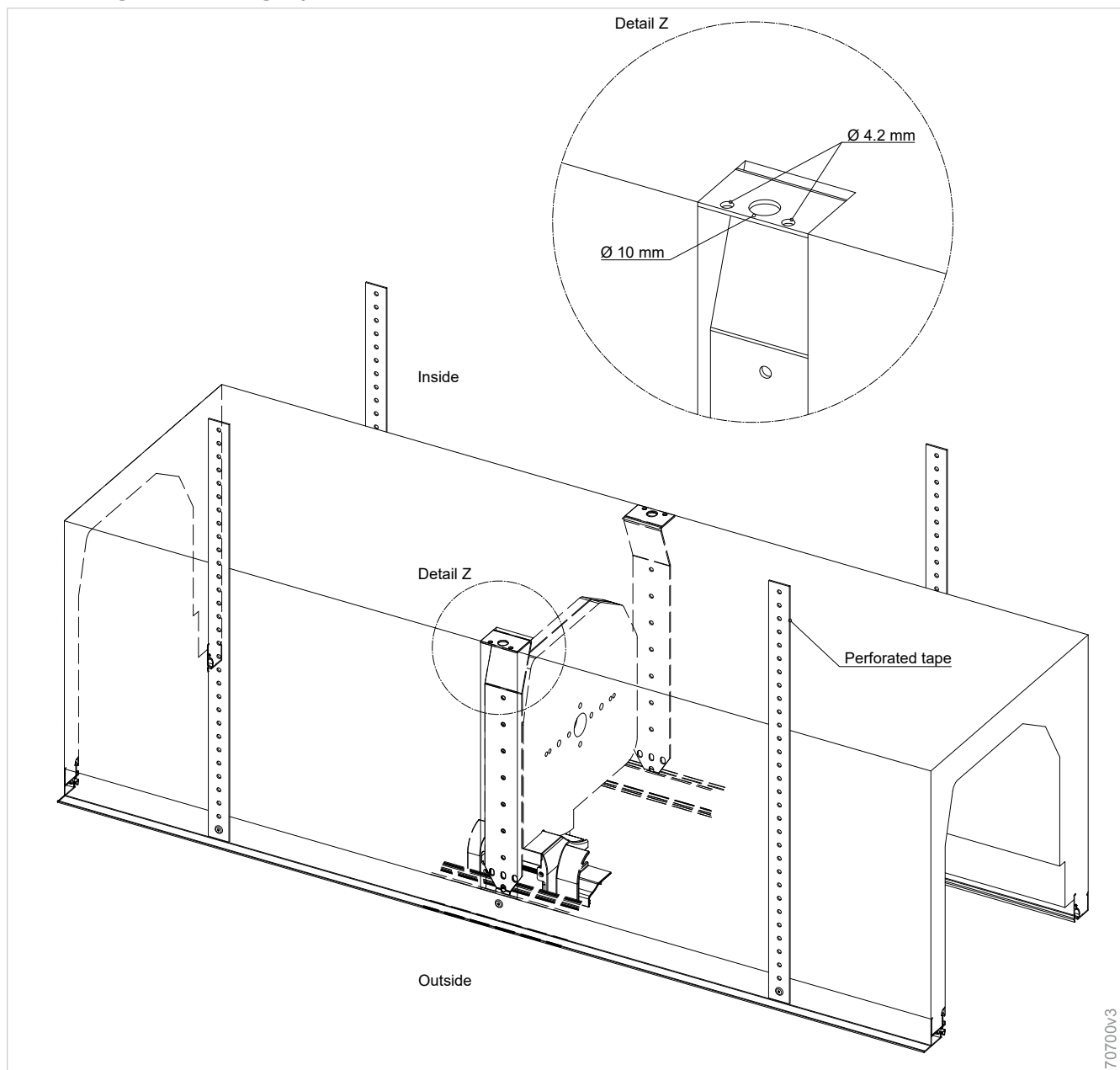
## Box fastening for group units

### Ceiling fasteners and perforated tape:

- Ceiling fasteners are used as standard in centre situations. Note surcharge for each ceiling fastener in addition to the surcharge for the centre situation. Other additional ceiling fasteners are optionally available.
- In addition to the ceiling fasteners for centre situations, the box is designed with perforated tape for widths greater than 1500 mm (length of perforated tape 500 mm). 2 or 3 perforated tapes are used respectively on each side for a box width of 3000 mm or 4500 mm or greater.
- Perforated tape is located on the side cover to the inside and on the outside of the box.

- To order a model with a ceiling fasteners, please use the supplemental Box Accessories order form, art. no. 2010110.
- Ceiling fasteners and perforated tapes only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

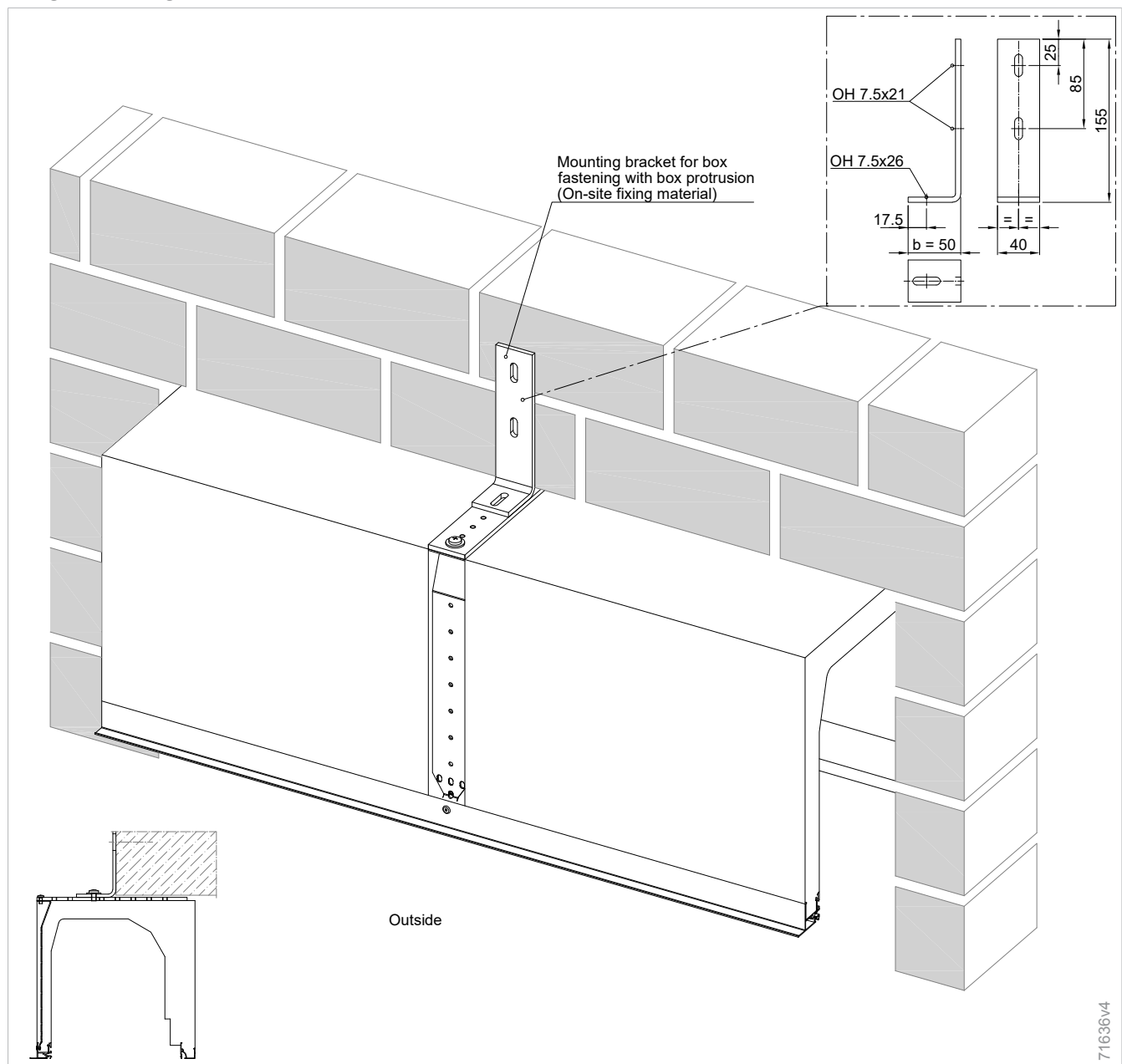
### Tab for ceiling installation for group units



## Box fastening for box protrusion with mounting bracket

- Mounting bracket for receiving the ceiling fastener with box protrusion (e.g. for EIFS)
  - The prerequisite for installation of the mounting bracket is that it is equipped with ceiling fasteners. Please note the additional surcharge for each ceiling fastener.
- To order a model with a ceiling fastener and mounting bracket, please use the supplemental Box Accessories order form, art. no. 2010110.
- Ceiling fasteners only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

### Fixing via mounting bracket



## Structural consoles

**The planner or customer is responsible for determining the structural strength (wind load) on the basis of the window profile selected.**

If the required standard classes are not achieved either by the window frame or a window frame reinforcement, the structural strength can be improved by using structural consoles.

**Load bearing capacity of the structural console: 1.0 kN**

The load-bearing capacity only applies under the following on-site conditions:

- Mounting substructure with sufficient load-bearing capacity
- Use of suitable fixing material
- Rests on the full surface of the console, pressure resistant lining

**Number of structural consoles:** Specify the required quantity when ordering.

**Delivery condition:** Structural consoles are embedded in the box and must be firmly screwed to the structure.

**Attention must be paid to:**

- The structural consoles are aligned symmetrically, if not specified otherwise.
- The distance between the middle side cover/side cover and structural console must be at least 150 mm.

**Usability of structural consoles depending on box design and window connection:**

| Box size/design              | Window connection via unwind strip | Plastic clip fixing for window connection | Steel clip fixing for window connection |
|------------------------------|------------------------------------|-------------------------------------------|-----------------------------------------|
| Box for masonry              |                                    |                                           |                                         |
| 240x250                      | -                                  | -                                         | -                                       |
| 300x250                      | X                                  | -                                         | X                                       |
| 365x250                      | X                                  | -                                         | X                                       |
| 300x300                      | X                                  | -                                         | X                                       |
| 365x300                      | X                                  | -                                         | X                                       |
| Box for clinker construction |                                    |                                           |                                         |
| 240x250                      | -                                  | -                                         | -                                       |
| 300x250                      | X                                  | -                                         | X                                       |
| 300x300                      | X                                  | -                                         | X                                       |

**Design of structural consoles for "Window connection via unwind strip":**

To fix in place, the inspection cover must be screwed to the window profile every 250 mm from below.

To check the structural strength and determine any required structural consoles, our Structural console tool is available to you. You can find this in myWAREMA under Services & Tools.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

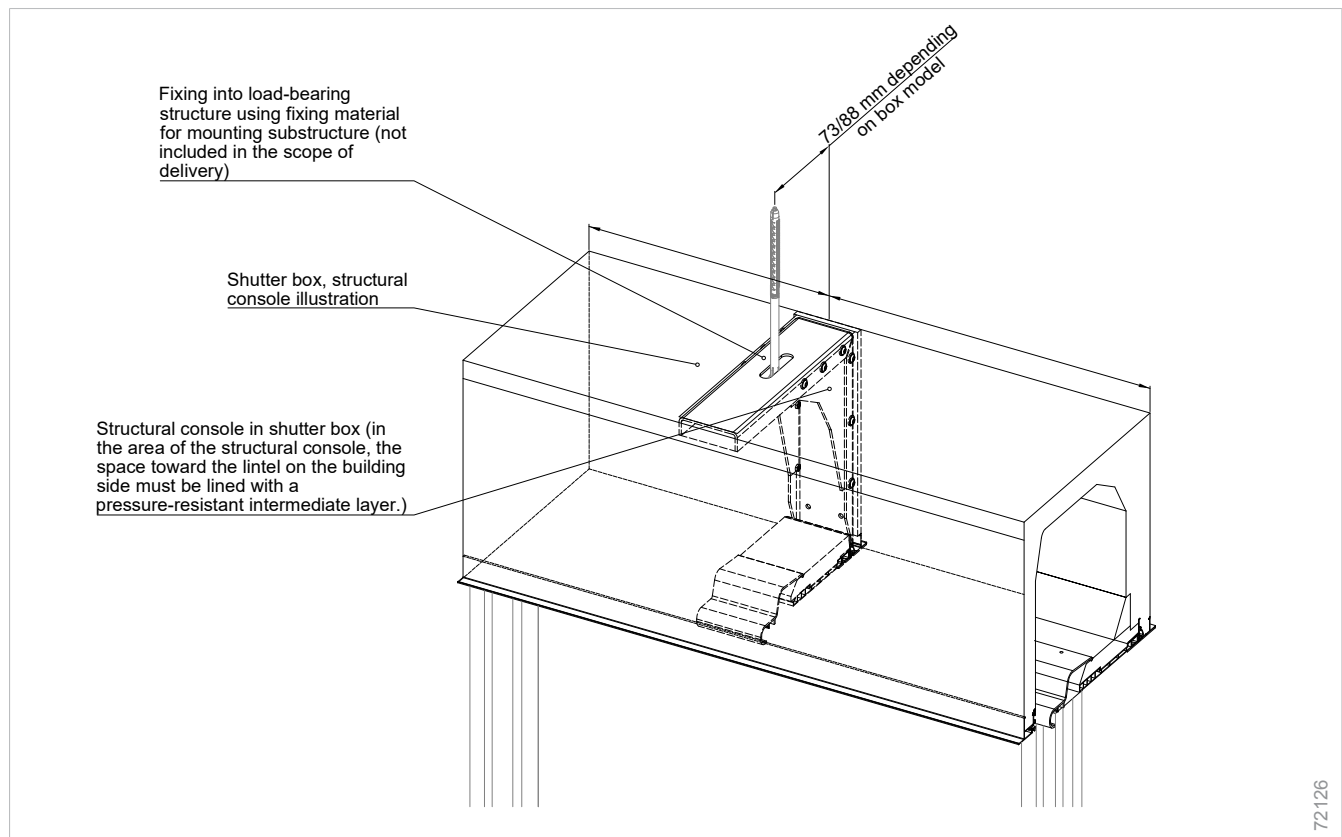
Supplementary accessories

Components

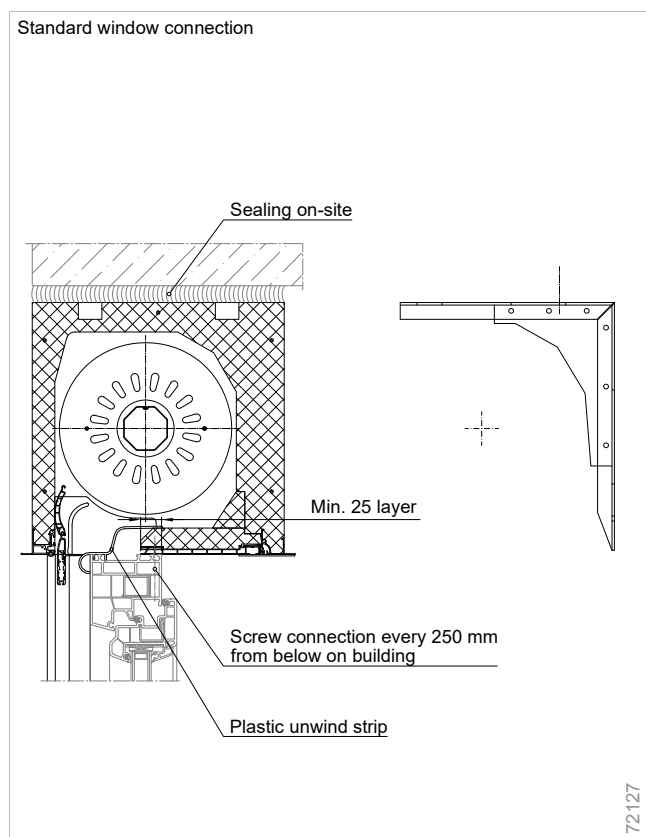
Drive variants

Standards

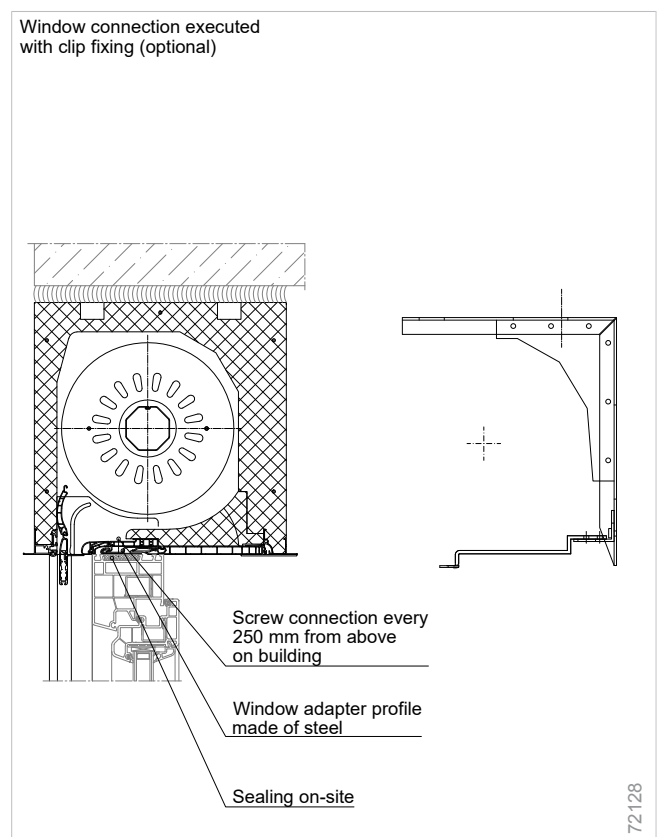
## NA-RO, inspection from inside, model with structural console



## Structural console, NA-RO inspection from inside, standard window connection



## Structural console NA-RO, inspection from inside, clip fixing window connection



## Box with integrated fan

### Passive fan for ventilating closed rooms (supply air)

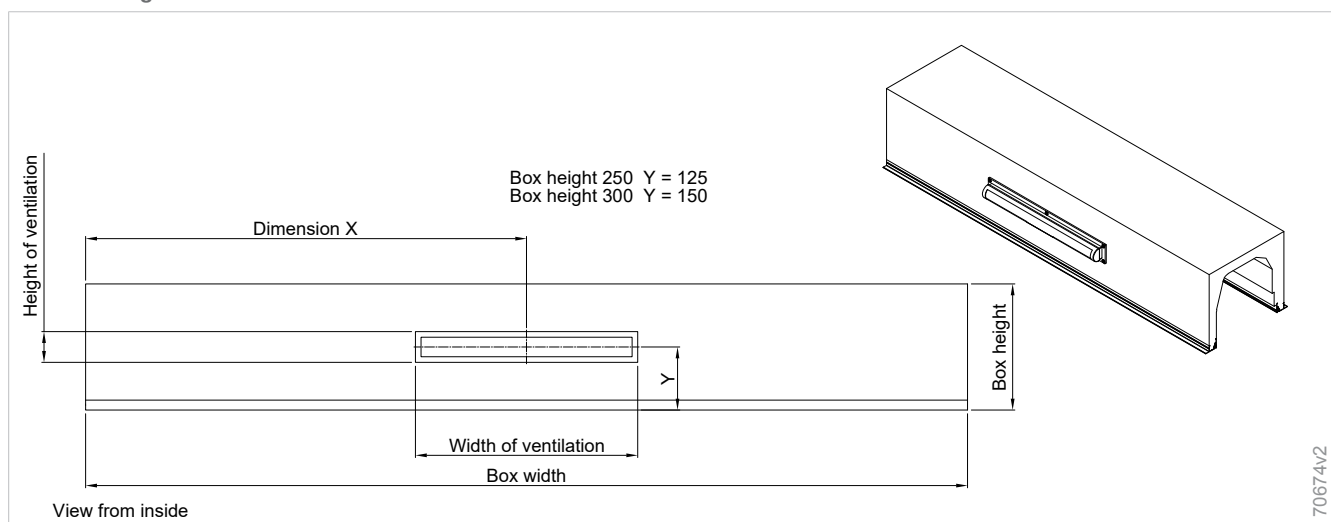
**Available brands:** Siegenia AEROMAT midi, AERECO ZUROH 100 or ZUROH 110

- Can be used as an air vent opening for a central exhaust air system
- Pressure compensation between outside and inside air (pressure differential principle)
- Available for internal and external revisions, for all box dimensions
- Specify dimension X, brand and number of desired fan elements
- Data sheet upon request

**In general, only supply air systems may be used (exhaust air is not possible via the lintel box).**

To order the product variant with integrated fan system, use the supplemental order form for Box Accessories, art. no. 2010110.

### Box with integrated fan



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Box with ventilation cutting

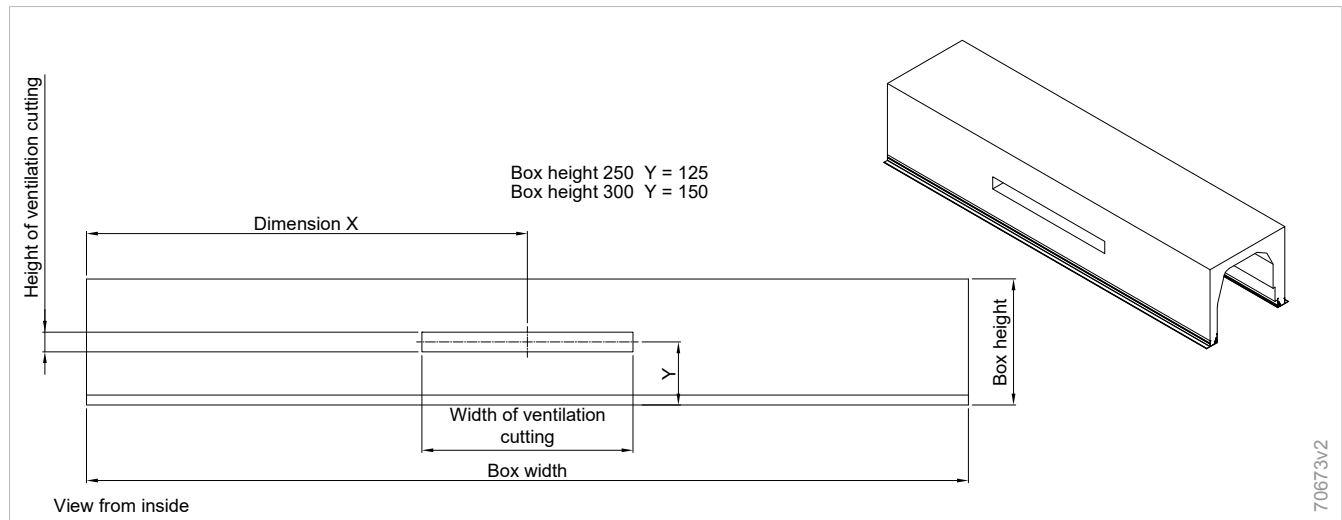
### Ventilation cutting for on-site fan unit to hold a passive window fan for ventilating closed rooms (supply air)

- Specify number of milled areas, brand and dimension X
- Data sheet upon request
- Individual technical clarification about product variants with ventilation cutting can be obtained from Applied Engineering

**In general, only supply air systems may be used (exhaust air is not possible via the lintel box).**

To order the product variant with ventilation cutting, use the supplemental order form for Box Accessories, art. no. 2010110.

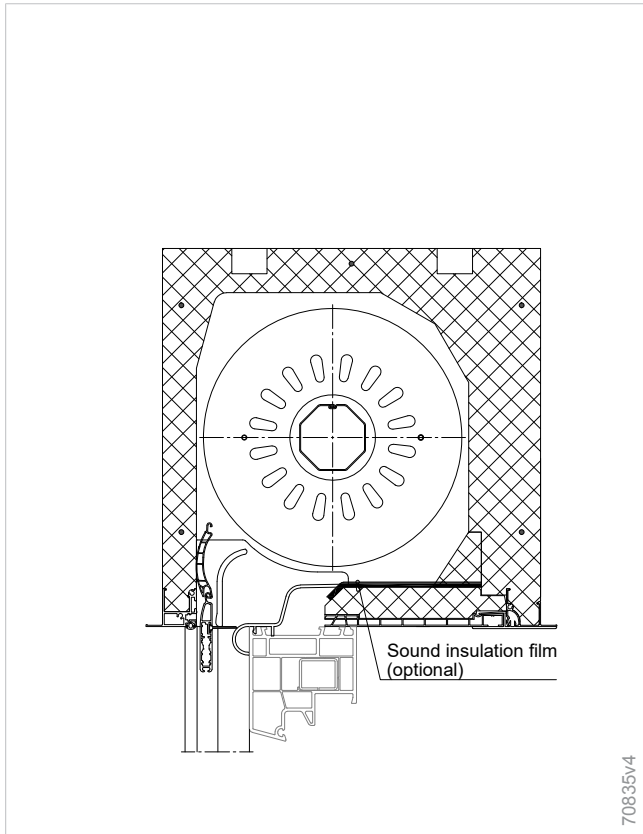
### Box with ventilation cutting



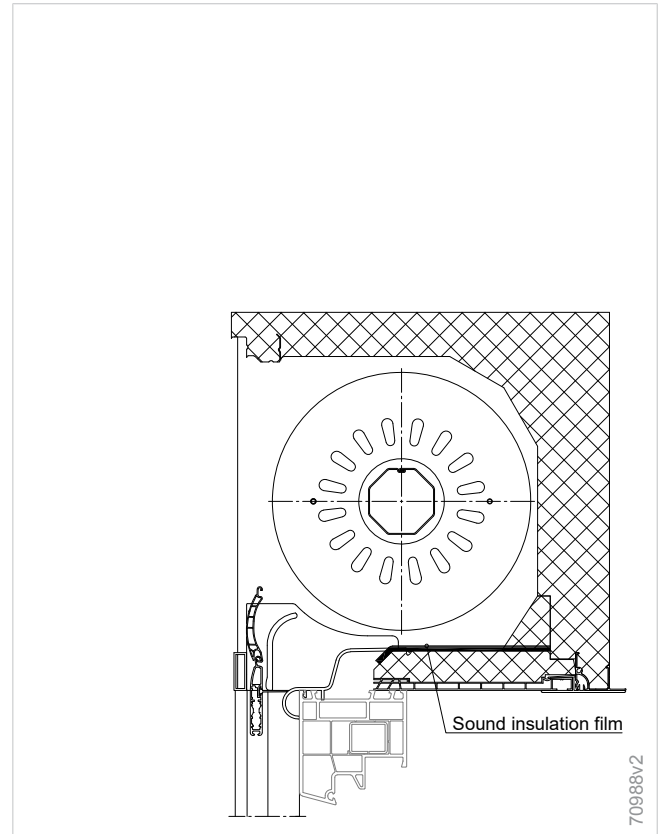
## Sound insulation

You can find information on the sound absorbing coefficients, taking into account the existing test certificates (measurement according to EN ISO 10140), at [www.warema.de](http://www.warema.de) in the top-mounted roller shutter for new buildings NA-RO section.

### Sound insulation (model with sound insulation package) - masonry



### Sound insulation (model with sound insulation package) - Clinker construction



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

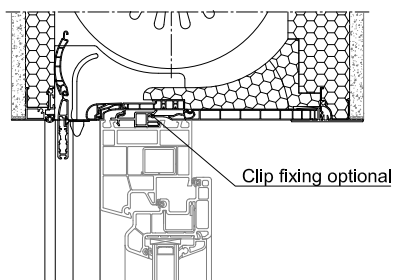
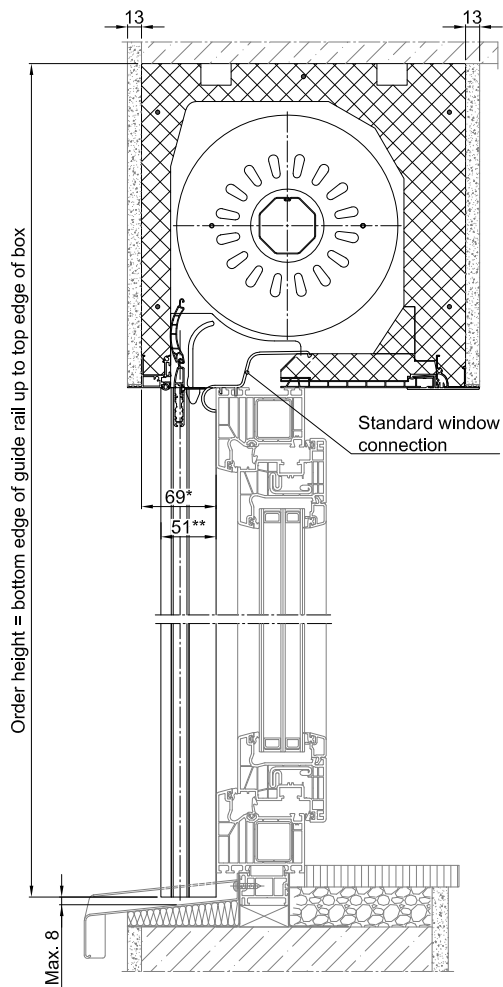
Standards



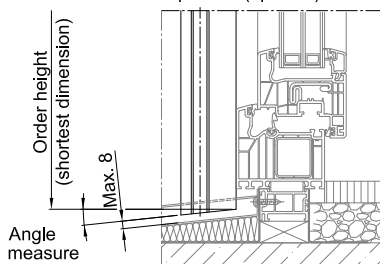
# Mounting examples

## Box for masonry with plastic guide rails

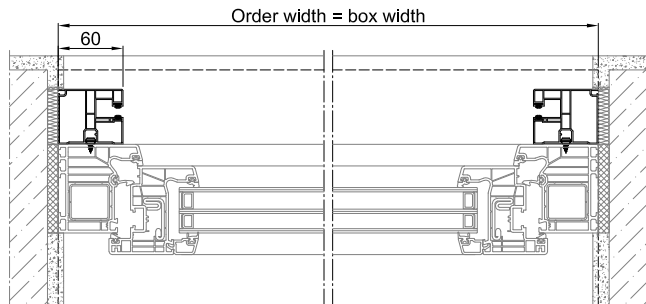
Plastic guide rail



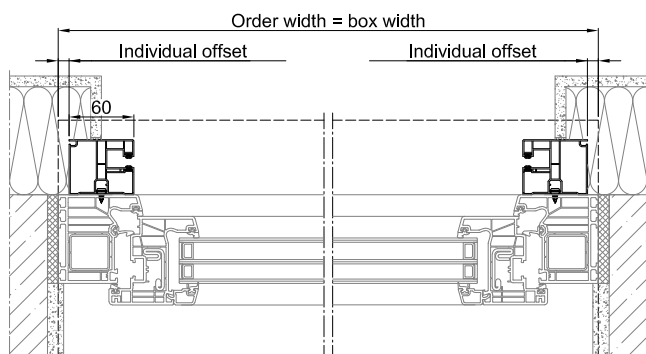
Guide rails with sloped cut (optional)



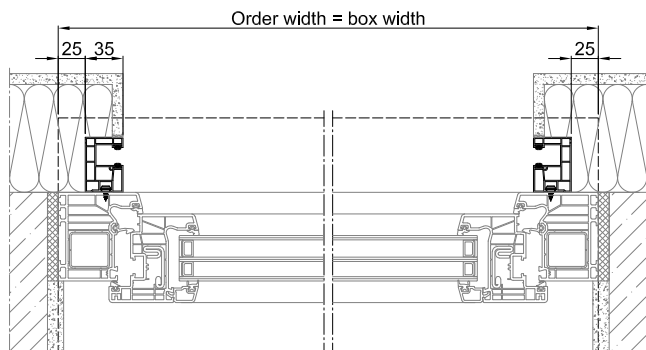
- \* Distance from outer edge of box to outer layer of window frame
- \*\* Distance from outer edge of guide rails to outer layer of window frame



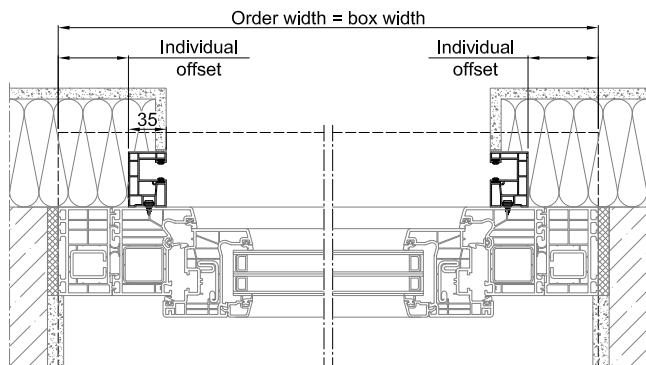
Model with guide rail 60-51 / standard situation



Model with guide rail 60-51 drawn-in



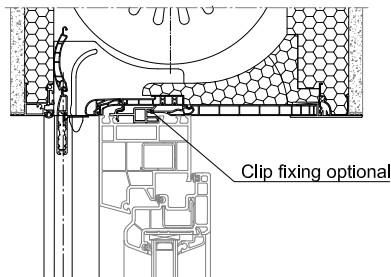
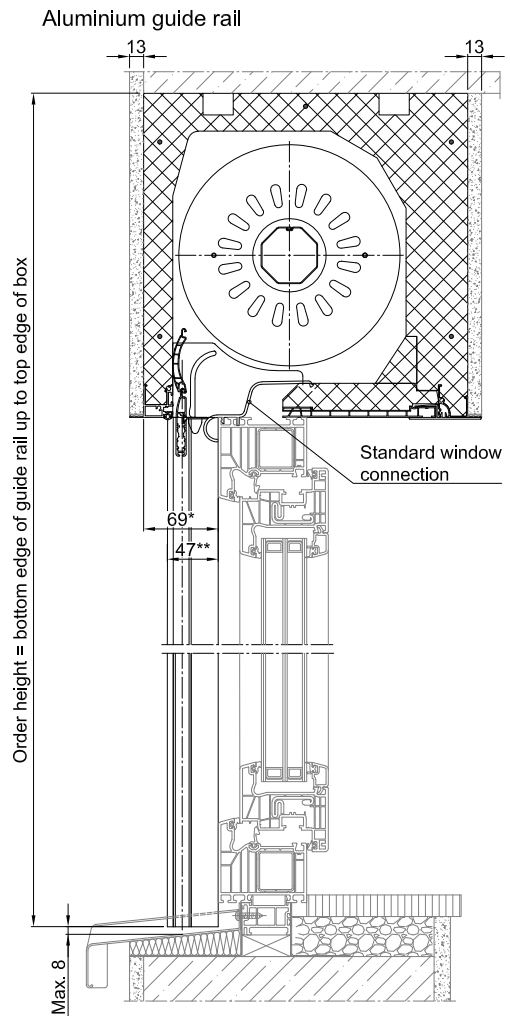
Model with guide rail 35-51 / standard offset 25 mm



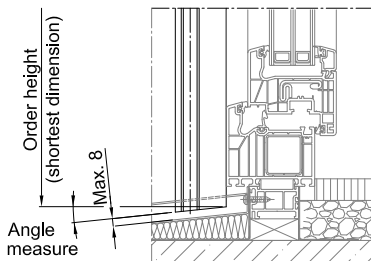
Model with guide rail 35-51 / with increased offset

70649v5

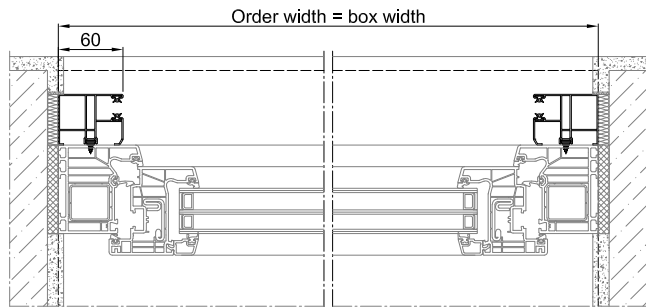
# Box for masonry with aluminium guide rails



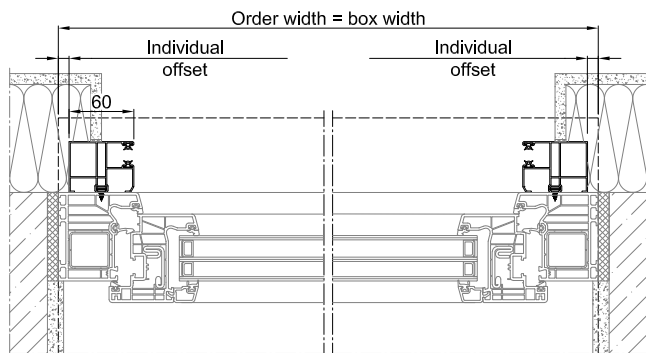
## Guide rails with sloped cut (optional)



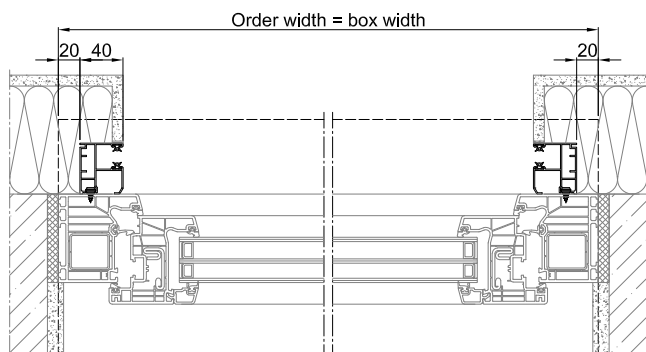
- \* Distance from outer edge of box to outer layer of window frame
- \*\* Distance from outer edge of guide rails to outer layer of window frame



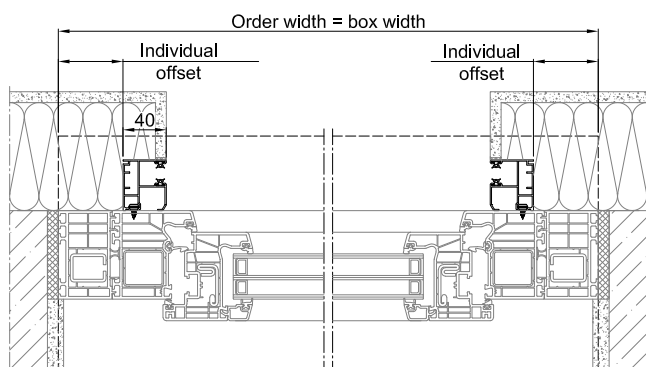
Model with guide rail 60-47 / standard situation



Model with guide rail 60-47 drawn-in



Model with guide rail 40-47 / standard offset 20 mm



Model with guide rail 40-47 / with increased offset

70650v4

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

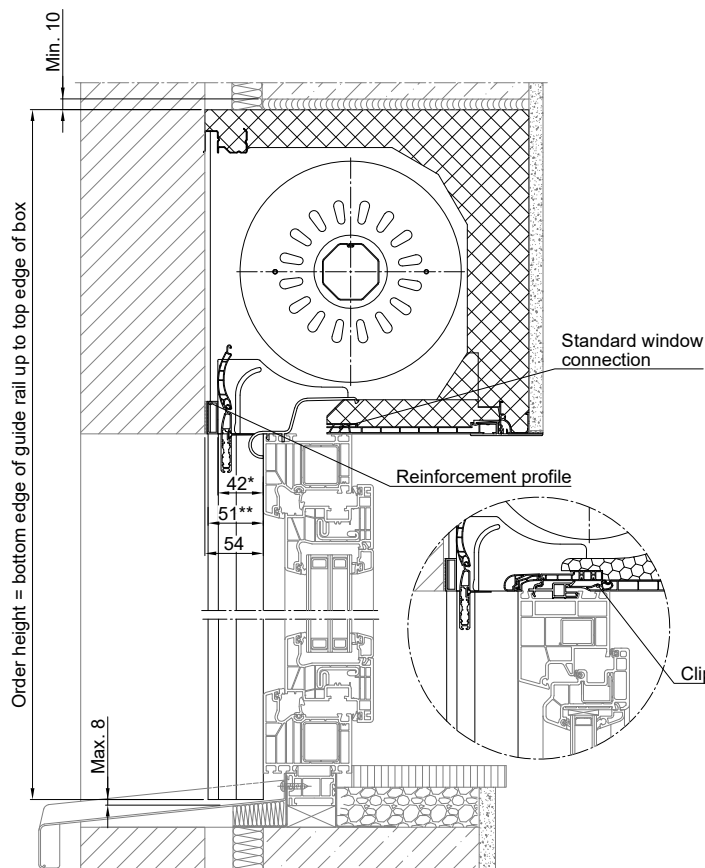
Supplementary accessories

Components

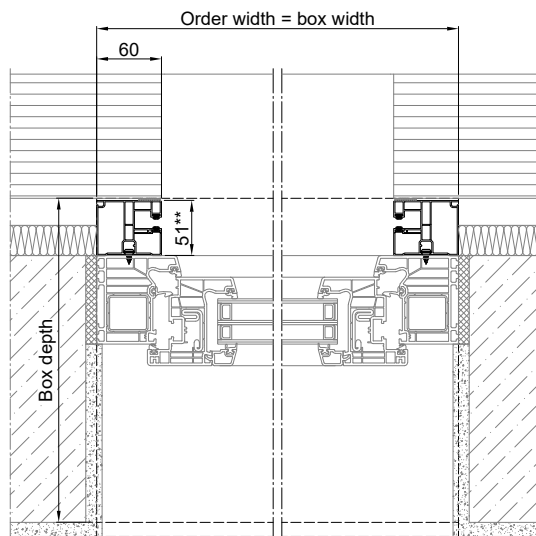
Drive variants

Standards

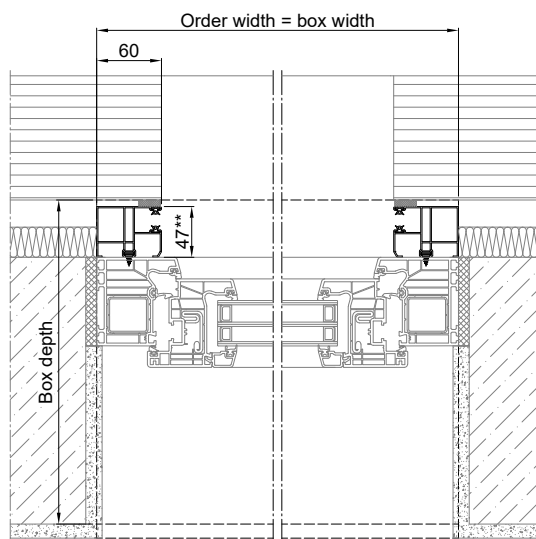
## Box for clinker construction



### Plastic guide rails



### Aluminium guide rails

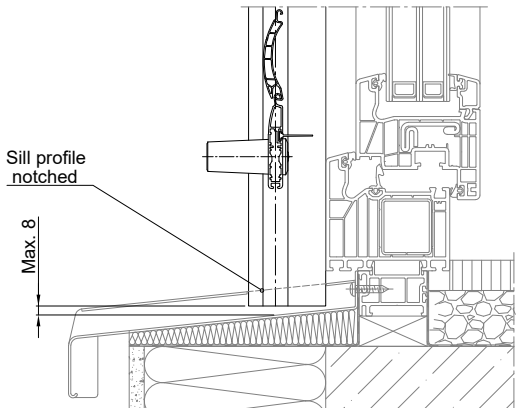
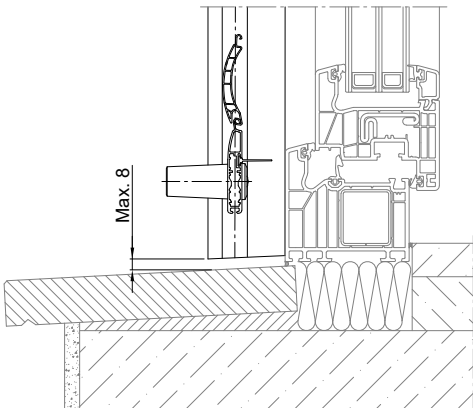
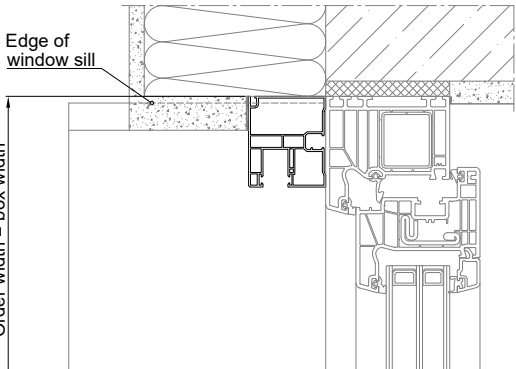
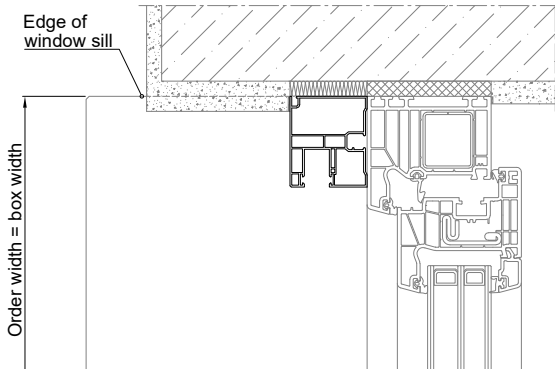
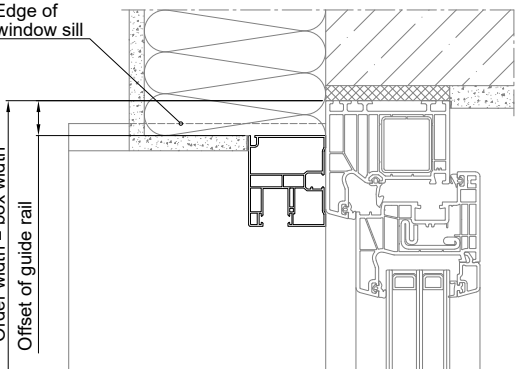
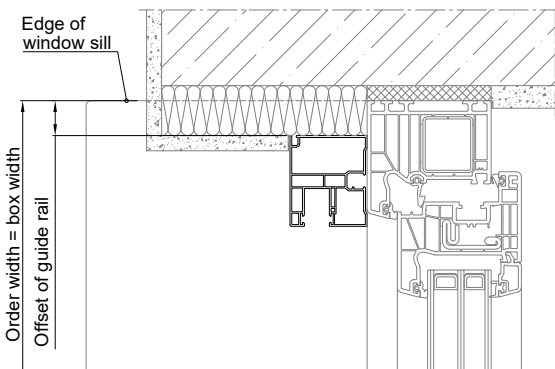


- \* Distance from outer edge of box to outer layer of window frame
- \*\* Distance from outer edge of guide rails to outer layer of window frame for plastic guide rails 51 mm / for aluminium guide rails 47 mm

The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

70685v7

Window sill connection for aluminium/stone window sill

|                                                                                                                                                                            |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Aluminium window sill                                                                                                                                                      |  |  |  |  |
|  <p>Sill profile notched</p> <p>Max. 8</p>                                                |  |  |  |  |
| Stone window sill                                                                                                                                                          |  |  |  |  |
|  <p>Max. 8</p>                                                                           |  |  |  |  |
| Guide rail embedded in plaster                                                                                                                                             |  |  |  |  |
|  <p>Edge of window sill</p> <p>Order width = box width</p>                               |  |  |  |  |
| Guide rail embedded in plaster                                                                                                                                             |  |  |  |  |
|  <p>Edge of window sill</p> <p>Order width = box width</p>                              |  |  |  |  |
| Guide rail embedded in plaster - drawn-in (optional)                                                                                                                       |  |  |  |  |
|  <p>Edge of window sill</p> <p>Order width = box width</p> <p>Offset of guide rail</p>  |  |  |  |  |
| Guide rail embedded in plaster - drawn-in (optional)                                                                                                                       |  |  |  |  |
|  <p>Edge of window sill</p> <p>Order width = box width</p> <p>Offset of guide rail</p> |  |  |  |  |
|                                                                                                                                                                            |  |  |  |  |
|                                                                                                                                                                            |  |  |  |  |
|                                                                                                                                                                            |  |  |  |  |

70610v2

70610v2

## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Top-mounted roller shutters  
<https://docs.warema.com/1.1314.0>







## Top-mounted roller shutters

### Top-mounted roller shutter for new buildings NA-RO inspection access outside

#### Economical

Box is fixed to the window and is installed at the same time as the window - no lintel structure is required above the window.

#### Sophisticated

Designed according to the requirements of masonry or clinker brick construction - perfectly combinable with external venetian blinds thanks to the same box sizes.

#### Stable

Safe diversion of wind loads possible by integrating structural consoles.



#### Construction limit values

|                                   |                   |
|-----------------------------------|-------------------|
| Maximum order width               | 3500 mm           |
| Maximum order height              | 3500 mm           |
| Maximum order area                | 10 m <sup>2</sup> |
| Maximum order width of group unit | 5000 mm           |

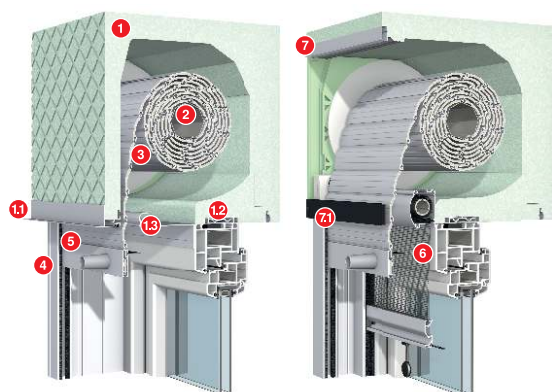


#### Product characteristics

- Box for masonry or clinker construction
- Inspection access outside, shaft depth 80 mm or 120 mm
- Insect screen, optional



## Components



|     |                                 |     |                              |
|-----|---------------------------------|-----|------------------------------|
| 1   | Box                             | 4   | Guide rail                   |
| 1.1 | Plaster base profile, outside   | 5   | Bottom rail                  |
| 1.2 | Window connection               | 6   | Insect screen roller blind   |
| 1.3 | Inspection cover / unwind strip | 7   | Box for clinker construction |
| 2   | Shaft                           | 7.1 | Reinforcement profile        |
| 3   | Roller shutter curtain          |     |                              |

### Box

#### Size 80 shaft, masonry box

|                     |                                             |
|---------------------|---------------------------------------------|
| Material            | Polystyrene                                 |
| Material colour     | Green                                       |
| Box sizes           | 240x250, 300x250, 365x250, 300x300, 365x300 |
| Unwinding direction | Right-rolling blind                         |

#### Box fastening:

- For box widths of 1500 mm and greater, the box is fitted with perforated tape for extra fixing to the structure.
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

+ see "Box fastening via perforated tapes", Page 111

#### + Side cover

#### Side covers for top-mounted systems for new buildings

|                 |                                 |
|-----------------|---------------------------------|
| Material        | Plastic, injection moulded part |
| Material colour | Green                           |

Incl. mounting sleeve for fastening of the connecting tab.

#### + Inspection cover

#### Inspection cover NA-RO, inspection from outside (= unwind strip)

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Material          | Plastic                                                                                   |
| Optional material | Aluminium                                                                                 |
| Surface           | Plastic                                                                                   |
| Optional surface  | Powder-coated                                                                             |
| Material colour   | White                                                                                     |
| Material, notes   | When aluminium guide rails are used, an aluminium unwind strip is automatically supplied. |

#### + Plaster base profile

#### Plaster base profile, outside

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Plain               |
| Optional surface | Powder-coated       |
| Depth            | 13 mm               |

13 mm standard projection, can optionally be extended up to 80 mm.

#### Plaster base profile, inside

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Plain               |
| Depth    | 13 mm               |

Covered with PVC strip, white

+ see "Masonry box, size 80 shaft", Page 134

#### Size 80 shaft, clinker construction

|                     |                     |
|---------------------|---------------------|
| Material            | Polystyrene         |
| Material colour     | Green               |
| Box sizes           | 300x300, 365x300    |
| Unwinding direction | Right-rolling blind |

#### Box fastening:

- For box widths of 1500 mm and greater, the box is fitted with perforated tape for extra fixing to the structure.
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

#### + Side cover

#### Side covers for top-mounted systems for new buildings

|                 |                                 |
|-----------------|---------------------------------|
| Material        | Plastic, injection moulded part |
| Material colour | Green                           |

Incl. mounting sleeve for fastening of the connecting tab.

#### + Inspection cover

#### Inspection cover NA-RO, inspection from outside (= unwind strip)

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Material          | Plastic                                                                                   |
| Optional material | Aluminium                                                                                 |
| Surface           | Plastic                                                                                   |
| Optional surface  | Powder-coated                                                                             |
| Material colour   | White                                                                                     |
| Material, notes   | When aluminium guide rails are used, an aluminium unwind strip is automatically supplied. |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



## + Reinforcement profile

### Reinforcement profile, box for clinker construction

|                 |                                                                                                                                                                    |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium                                                                                                                                                          |
| Material colour | Black                                                                                                                                                              |
| Material, notes | A fibre board made of Phonotherm® is also available as an option for the aluminium reinforcement profile (below with aluminium end profile, powder-coated, black). |

➤ see "Box for clinker construction, size 80 shaft", Page 135

## Box, optional

### Size 120 shaft, masonry box

|                     |                                    |
|---------------------|------------------------------------|
| Material            | Polystyrene                        |
| Material colour     | Green                              |
| Box sizes           | 300x250, 365x250, 300x300, 365x300 |
| Unwinding direction | Right-rolling blind                |

- The 120 shaft depth allows a larger inspection access as well as a uniform window position in a combination of top-mounted roller shutters for new buildings and top-mounted external venetian blind for new buildings.
- An aluminium unwind strip is automatically used for a 120 mm shaft opening.

#### Box fastening:

- For box widths of 1500 mm and greater, the box is fitted with perforated tape for extra fixing to the structure.
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

### Side covers for top-mounted systems for new buildings

|                 |                                 |
|-----------------|---------------------------------|
| Material        | Plastic, injection moulded part |
| Material colour | Green                           |

Incl. mounting sleeve for fastening of the connecting tab.

### Inspection cover NA-RO, inspection from outside (= unwind strip)

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Material          | Plastic                                                                                   |
| Optional material | Aluminium                                                                                 |
| Surface           | Plastic                                                                                   |
| Optional surface  | Powder-coated                                                                             |
| Material colour   | White                                                                                     |
| Material, notes   | When aluminium guide rails are used, an aluminium unwind strip is automatically supplied. |

➤ see "Masonry box, size 120 shaft", Page 136

### Size 120 shaft, clinker construction

|                     |                     |
|---------------------|---------------------|
| Material            | Polystyrene         |
| Material colour     | Green               |
| Box sizes           | 300x300, 365x300    |
| Unwinding direction | Right-rolling blind |

- The 120 shaft depth allows a larger inspection access as well as a uniform window position in a combination of top-mounted roller shutters for new buildings and top-mounted external venetian blind for new buildings.
- An aluminium unwind strip is automatically used for a 120 mm shaft opening.

#### Box fastening:

- For box widths of 1500 mm and greater, the box is fitted with perforated tape for extra fixing to the structure.
- If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

## + Side cover

### Side covers for top-mounted systems for new buildings

|                 |                                 |
|-----------------|---------------------------------|
| Material        | Plastic, injection moulded part |
| Material colour | Green                           |

Incl. mounting sleeve for fastening of the connecting tab.

## + Inspection cover

### Inspection cover NA-RO, inspection from outside (= unwind strip)

|                   |                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------|
| Material          | Plastic                                                                                   |
| Optional material | Aluminium                                                                                 |
| Surface           | Plastic                                                                                   |
| Optional surface  | Powder-coated                                                                             |
| Material colour   | White                                                                                     |
| Material, notes   | When aluminium guide rails are used, an aluminium unwind strip is automatically supplied. |

➤ see "Box for clinker construction, size 120 shaft", Page 136

## Window connection

### Window connection using plastic profile

|                 |         |
|-----------------|---------|
| Material        | Plastic |
| Material colour | White   |

Plastic profile integrated/bonded in the insulating wedge of the box. Reinforcement with inserted stiffener profile made of steel.

➤ see "Window connection, screw-fixed", Page 102

## Window connection, optional

### Clip fixing, plastic

|                 |         |
|-----------------|---------|
| Material        | Plastic |
| Material colour | White   |

Comprised of base profile and window adapter profile made of plastic

### Clip fixing, steel

|          |             |
|----------|-------------|
| Material | Steel       |
| Surface  | Zinc-coated |

Comprised of plastic base profile, white, and window adapter profile made of steel

+ see "Window connection via clip fixing", Page 103

## Shaft

### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

## Roller shutter curtain

- A 36
- A 44
- A 53
- K 36
- K 52

Roller shutter curtain, optional:

- S 37

+ see "Roller shutter curtain", Page 274

## Bottom rail

- Flat end rail with sealing lip

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

## Guide variants

- Rail guidance

### Guide rail

- Guide rail 63-74, plastic (white), 25 mm offset

Guide rail, optional:

- Guide rail 60-85, aluminium, 20 mm offset
- Guide rail 60-125, aluminium, 20 mm offset

+ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

Basic motor, optional:

- WAREMA SecuKit, motor with additional belt operation
- Motor with additional collapsible crank ZHK

Radio motor, optional:

- WMS Radio motor type WMS-RP inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RP incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)

### Radio motor, optional

- WMS Radio motor type WMS-RP inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RP incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with internal gear
- Vertical drive outlet
- Horizontal drive outlet

### Gear

- Crank type 1, crank
- Crank type 2, bevel gear

### Belt

- Belt, 14 mm
- Vertical drive outlet
- Horizontal drive outlet

Belt, optional:

- Belt, 23 mm (only in connection with box extension; note limited order height, see Chapter "Drives")

+ see "Drive variants", Page 329

## Colours

- White
- Colours for shutter profiles

Colours, optional:

- Colours for decor films
- WAREMA Colour World

+ see "Colours", Page 12

## Insect screen

Insect screen, optional:

- Integrated insect screen roller blind
- Integrated insect screen swivel door

+ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen
- Integrated fall protection VisioNeo
- WAREMA SecuKit
- Motor with additional collapsible crank ZHK

+ see "Supplementary accessories", Page 235

## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum box width:** 5000 mm
- **Model with roller shutter curtain S37:** couplings or continuous boxes are not possible.
- **Maximum number of single roller shutter curtains within a group unit:** 3

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 5000 mm                           | 18 m <sup>2</sup>                |
| A 44                                                   |                     | 3500 mm             | 3500 mm              | 10 m <sup>2</sup>  | 5000 mm                           | 17 m <sup>2</sup>                |
| A 53                                                   |                     | 3500 mm             | 3100 mm              | 10 m <sup>2</sup>  | 5000 mm                           | 13 m <sup>2</sup>                |
| S 37                                                   |                     | 3000 mm             | 2800 mm              | 5 m <sup>2</sup>   | 5000 mm                           | 5 m <sup>2</sup>                 |
| K 36                                                   |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 5000 mm                           | 9,6 m <sup>2</sup>               |
| K 52                                                   |                     | 2500 mm             | 2800 mm              | 5 m <sup>2</sup>   | 5000 mm                           | 10 m <sup>2</sup>                |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 685 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 700 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt                                           | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 750 mm              | 2000 mm             | 2700 mm              | 5 m <sup>2</sup>   |                                   |                                  |
| Insect screen roller blind without soft-raise function | 580 mm              | 2000 mm             | 2700 mm              | 5 m <sup>2</sup>   |                                   |                                  |

## Maximum order area per operating class

| Configuration variants                         | Operating classes  |                    |                    |
|------------------------------------------------|--------------------|--------------------|--------------------|
|                                                | Design-related     | Operating class 1  | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                    |                    |                    |
| A 36 + Motor                                   | 18 m <sup>2</sup>  |                    |                    |
| A 44 + Motor                                   | 17 m <sup>2</sup>  |                    |                    |
| A 53 + Motor                                   | 13 m <sup>2</sup>  |                    |                    |
| S 37 + Motor                                   | 5 m <sup>2</sup>   |                    |                    |
| K 36 + Motor                                   | 9,6 m <sup>2</sup> |                    |                    |
| K 52 + Motor                                   | 10 m <sup>2</sup>  |                    |                    |
| A 36 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 3 m <sup>2</sup>   |
| A 44 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| A 53 + Crank type 1                            | 4 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 36 + Crank type 1                            | 5 m <sup>2</sup>   | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 52 + Crank type 1                            | 3,5 m <sup>2</sup> | 3,5 m <sup>2</sup> | 2 m <sup>2</sup>   |
| A 36 + Crank type 2                            | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 5,5 m <sup>2</sup> |

| Configuration variants | Operating classes  |                    |                    |
|------------------------|--------------------|--------------------|--------------------|
|                        | Design-related     | Operating class 1  | Operating class 2  |
| A 44 + Crank type 2    | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| A 53 + Crank type 2    | 7 m <sup>2</sup>   | 7 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| S 37 + Crank type 2    | 2,9 m <sup>2</sup> | 2,9 m <sup>2</sup> | 2 m <sup>2</sup>   |
| K 36 + Crank type 2    | 8 m <sup>2</sup>   | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| K 52 + Crank type 2    | 6,5 m <sup>2</sup> | 6 m <sup>2</sup>   | 3,5 m <sup>2</sup> |
| A 36 + Internal belt   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 44 + Internal belt   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 53 + Internal belt   | 3 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 36 + Internal belt   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 52 + Internal belt   | 2,5 m <sup>2</sup> | 1,5 m <sup>2</sup> | 1 m <sup>2</sup>   |

Planning

Front-mounted roller shutters

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order height per box size

| Configuration variants                                                    | Box sizes |         |         |         |         |
|---------------------------------------------------------------------------|-----------|---------|---------|---------|---------|
|                                                                           | 240x250   | 300x250 | 365x250 | 300x300 | 365x300 |
| <b>Box + Roller shutter curtain</b>                                       |           |         |         |         |         |
| Size 80 shaft, masonry box + A 36                                         | 3250 mm   | 3250 mm | 3250 mm | 3500 mm | 3500 mm |
| Size 80 shaft, masonry box + A 44                                         | 2500 mm   | 2500 mm | 2500 mm | 3500 mm | 3500 mm |
| Size 80 shaft, masonry box + A 53                                         | 2000 mm   | 2000 mm | 2000 mm | 3100 mm | 3100 mm |
| Size 80 shaft, masonry box + S 37                                         | 2650 mm   | 2650 mm | 2650 mm | 2800 mm | 2800 mm |
| Size 80 shaft, masonry box + K 36                                         | 3000 mm   | 3000 mm | 3000 mm | 3000 mm | 3000 mm |
| Size 80 shaft, masonry box + K 52                                         | 2500 mm   | 2500 mm | 2500 mm | 2800 mm | 2800 mm |
| Size 80 shaft, clinker construction + A 36                                |           |         |         | 3500 mm | 3500 mm |
| Size 80 shaft, clinker construction + A 44                                |           |         |         | 3500 mm | 3500 mm |
| Size 80 shaft, clinker construction + A 53                                |           |         |         | 3100 mm | 3100 mm |
| Size 80 shaft, clinker construction + S 37                                |           |         |         | 2800 mm | 2800 mm |
| Size 80 shaft, clinker construction + K 36                                |           |         |         | 3000 mm | 3000 mm |
| Size 80 shaft, clinker construction + K 52                                |           |         |         | 2800 mm | 2800 mm |
| <b>Box + Roller shutter curtain + Insect screen</b>                       |           |         |         |         |         |
| Size 80 shaft, masonry box + K 52 + Integrated insect screen roller blind | 2000 mm   | 2000 mm | 2000 mm |         |         |

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

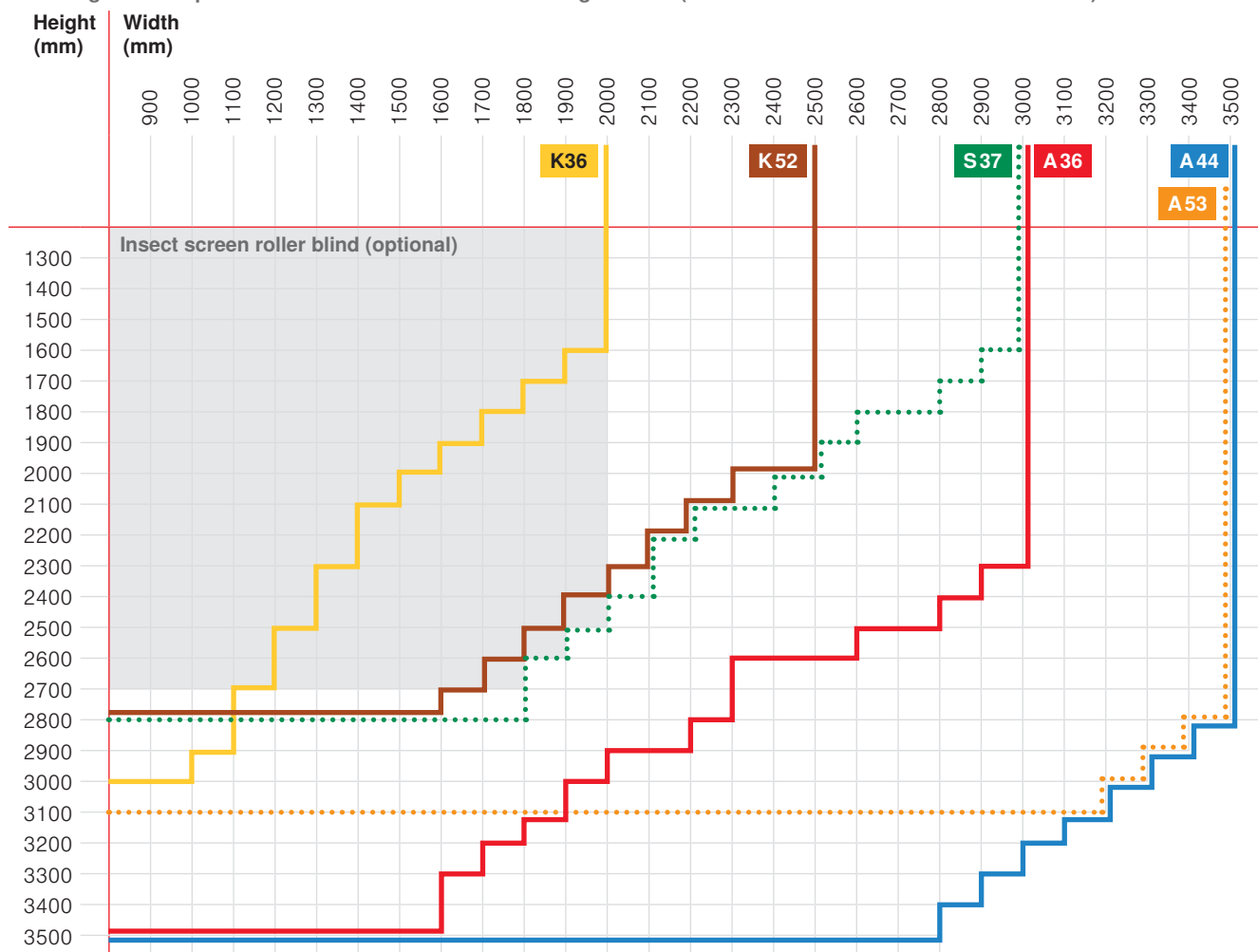
Standards

- The specified order heights also apply to shaft openings 120 mm (for box size 240x250, only 80 mm shaft opening possible).
- The use of an integrated insect screen roller blind only has an effect on the maximum height of each box size with the configuration variant masonry and shutter profile K 52.

## Maximum order width per wind resistance class

| Configuration variants                     | Wind resistance class |         |         |         |         |         |         |
|--------------------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                                            | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain + Guide rail</b> |                       |         |         |         |         |         |         |
| A 36 + Plastic guide rails                 | 3000 mm               | 2900 mm | 2820 mm | 2675 mm | 2375 mm | 1930 mm | 1325 mm |
| A 44 + Plastic guide rails                 | 3500 mm               | 3320 mm | 3320 mm | 3020 mm | 2610 mm | 1950 mm | 1060 mm |
| A 53 + Plastic guide rails                 | 3500 mm               | 3500 mm | 3500 mm | 3310 mm | 2830 mm | 2100 mm | 1130 mm |
| K 36 + Plastic guide rails                 | 2000 mm               | 1725 mm | 1670 mm | 1555 mm | 1320 mm | 970 mm  | 500 mm  |
| K 52 + Plastic guide rails                 | 2500 mm               | 2500 mm | 2480 mm | 2280 mm | 1900 mm | 1300 mm | 500 mm  |
| A 36 + Aluminium guide rails               | 3000 mm               | 2850 mm | 2775 mm | 2605 mm | 2275 mm | 1770 mm | 1105 mm |
| A 44 + Aluminium guide rails               | 3500 mm               | 3000 mm | 3000 mm | 3000 mm | 2625 mm | 2055 mm | 1285 mm |
| A 53 + Aluminium guide rails               | 3500 mm               | 3000 mm | 3000 mm | 3000 mm | 3000 mm | 2490 mm | 1790 mm |
| K 36 + Aluminium guide rails               | 2000 mm               | 1800 mm | 1725 mm | 1520 mm | 1115 mm | 515 mm  |         |
| K 52 + Aluminium guide rails               | 2500 mm               | 2355 mm | 2285 mm | 2140 mm | 1855 mm | 1425 mm | 850 mm  |
| S 37 + Aluminium guide rails               | 3000 mm               | 3000 mm | 2920 mm | 2620 mm | 2170 mm | 1580 mm |         |

Area diagram for top mounted roller shutter for new buildings NA-RO (maximum dimensions for individual areas)



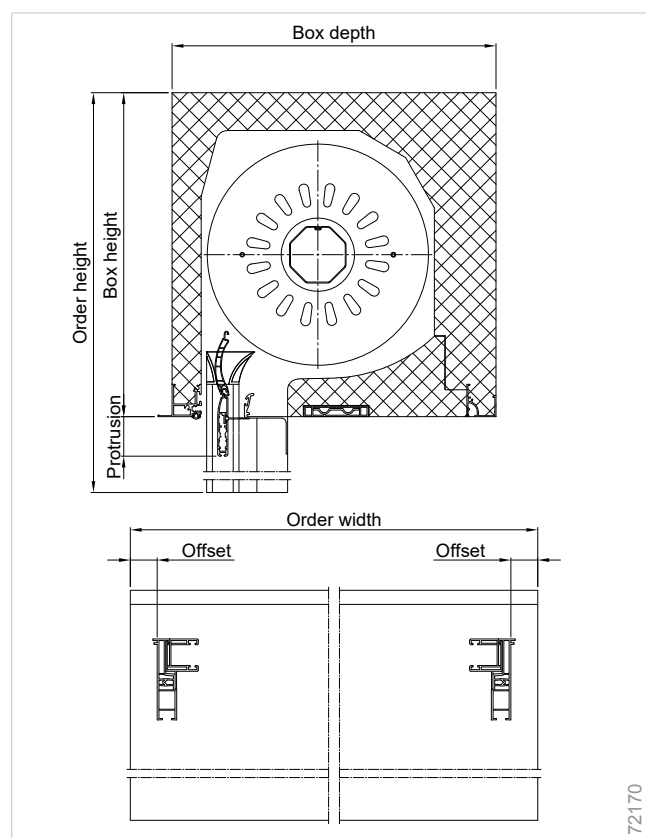
## Dimension determination

| Reference dimension | Dimension determination                              |
|---------------------|------------------------------------------------------|
| Order width         | = window frame width = box width                     |
| Order height        | Bottom edge of the guide rail to top edge of the box |
| Box height          | see box dimensions                                   |
| Box depth           | see box dimensions                                   |

- Operation side seen from inside
- Available information on window profile: manufacturer, type, window frame thickness
- Indicate desired box size.
- **Offsets:**
  - Note standard offsets for guide rails.
  - Larger offsets are possible, but only exclusively for window connections with clip fixing.

**Minimum distance between the box top edge and lintel: 10 mm**

### Order dimension determination, NA-RO inspection from outside



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Box types

- Box with an integrated base profile made of plastic with a steel reinforcement.
- **Fixing:**
  - By bolting or clipping on the bottom of the window frame depending on window connection.
  - Lateral fixing using connecting tabs which are fixed to the side cover using a premounted mounting sleeve.
- **Box width above 1500 mm:**
  - The box is fitted as standard with perforated tape for extra fixing to the structure for box widths starting at 1500 mm (regardless of whether a single or group unit).
  - If the use of perforated tapes is not possible, they can be replaced with ceiling fasteners.

### Group units:

- Ceiling fasteners required in the area of the middle rail for each centre situation, for which an additional surcharge must be calculated.
  - Masonry box: 2 ceiling fasteners per centre situation
  - Box for clinker construction: 1 ceiling fastener per centre situation
- Other additional ceiling fasteners are optionally available.

### Inspectability:

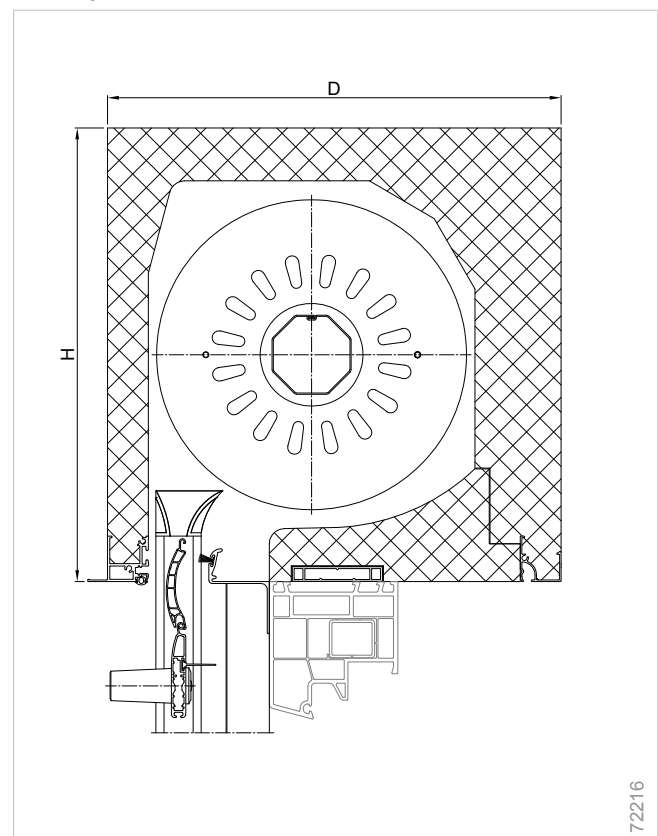
- The unwind strip also functions as an inspection cover.
- When an optional insect screen roller blind is used, the cassette of the insect screen roller blind assumes the function of the unwind strip or inspection cover.

## Masonry box, size 80 shaft

### Box dimensions

| Box size | Depth D | Height H |
|----------|---------|----------|
| 240x250  | 240 mm  | 250 mm   |
| 300x250  | 300 mm  | 250 mm   |
| 365x250  | 365 mm  | 250 mm   |
| 300x300  | 300 mm  | 300 mm   |
| 365x300  | 365 mm  | 300 mm   |

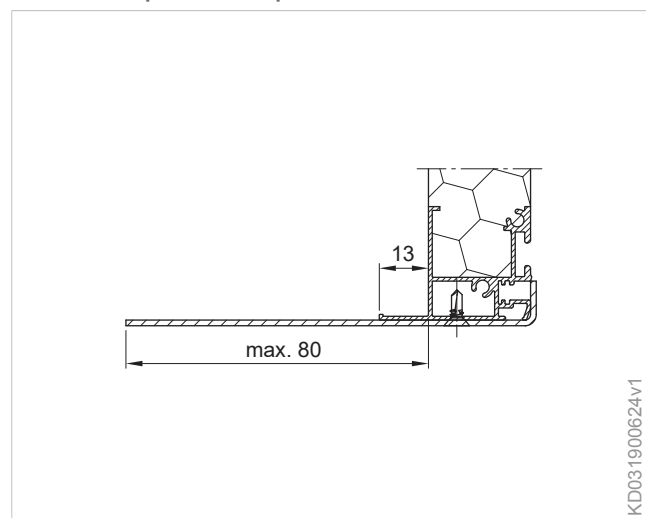
Masonry box



## Extension of external plaster base profile

- The extended plaster base profile can optionally be RAL powder-coated.
- The standard length plaster base profile (13 mm) is usually plain.

## Extension of plaster base profile outside

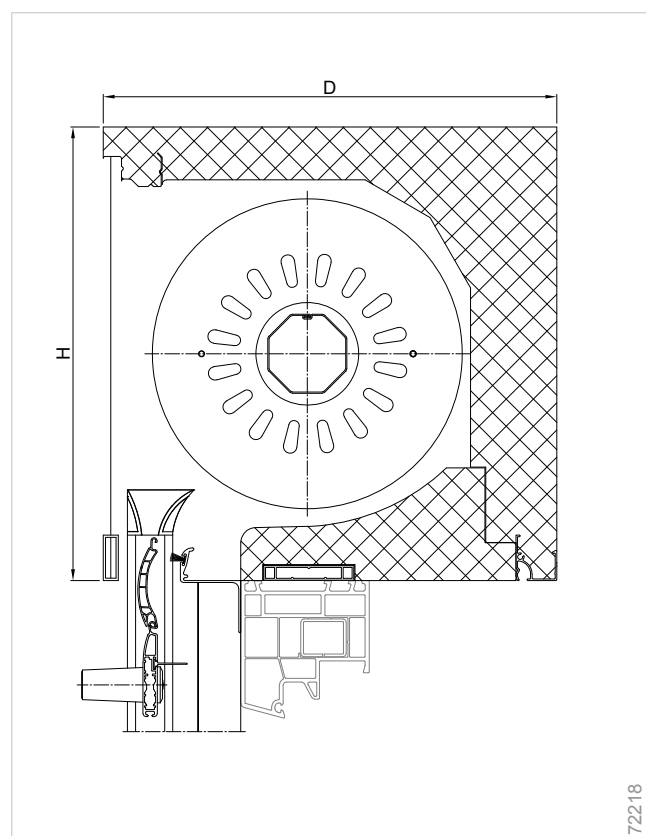


## Box for clinker construction, size 80 shaft

### Box dimensions

| Box size | Depth D | Height H |
|----------|---------|----------|
| 300x300  | 300 mm  | 300 mm   |
| 365x300  | 365 mm  | 300 mm   |

## Box for clinker construction



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

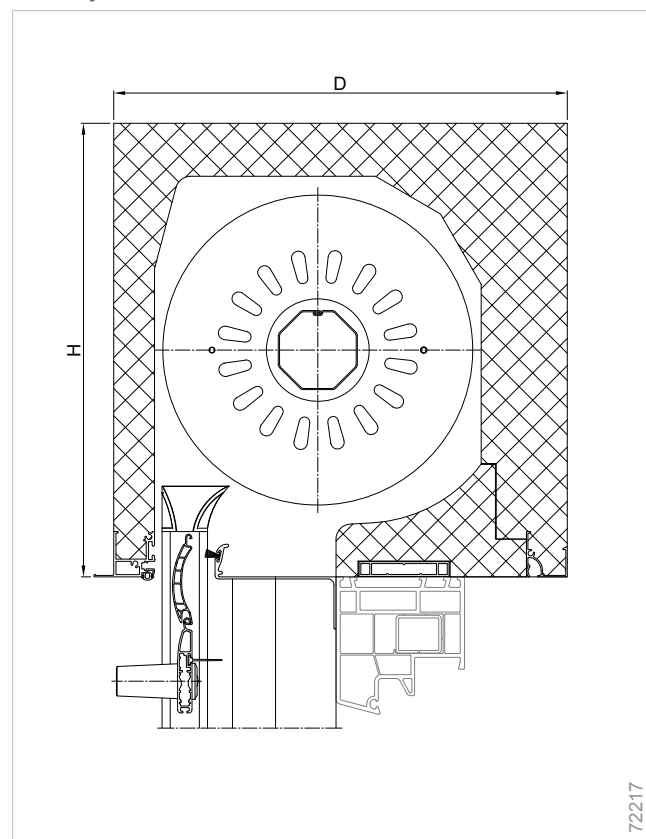


## Masonry box, size 120 shaft

### Box dimensions

| Box size | Depth D | Height H |
|----------|---------|----------|
| 300x250  | 300 mm  | 250 mm   |
| 365x250  | 365 mm  | 250 mm   |
| 300x300  | 300 mm  | 300 mm   |
| 365x300  | 365 mm  | 300 mm   |

### Masonry box

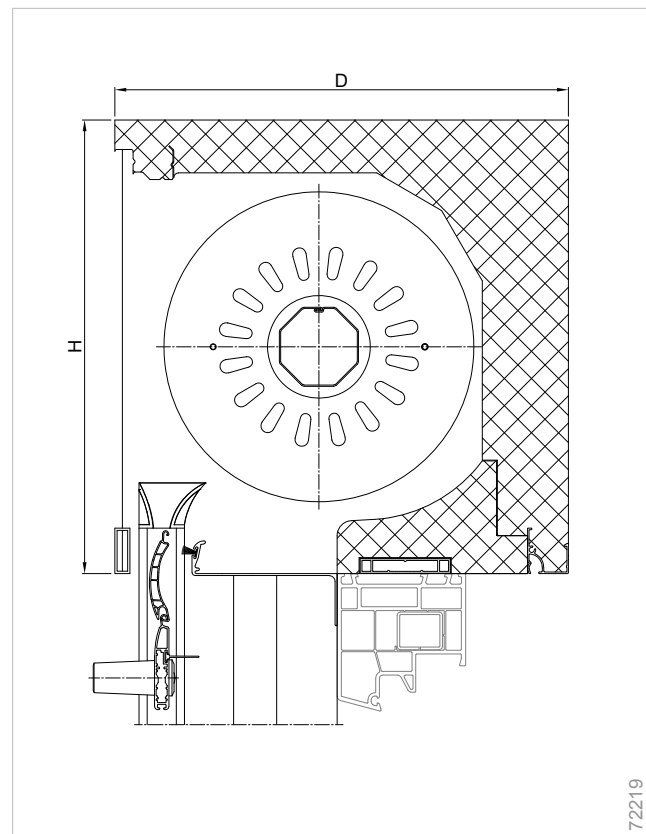


## Box for clinker construction, size 120 shaft

### Box dimensions

| Box size | Depth D | Height H |
|----------|---------|----------|
| 300x300  | 300 mm  | 300 mm   |
| 365x300  | 365 mm  | 300 mm   |

### Box for clinker construction



## Window connection, screw-fixed

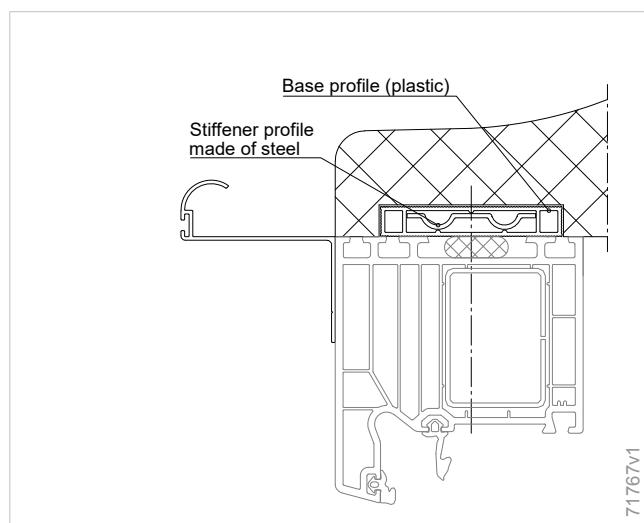
For window connection using plastic profile, integrated into the insulating wedge (standard fixing)

**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- Plastic profile, white, integrated/bonded in the insulating wedge of the lintel box
- Inside with additional inserted stiffener profile made of steel
- Unwind strip matching the shaft depth; various models available
- The box is screwed across the window width onto the window frame from below through the plastic and steel profile
- Area moment of inertia of steel stiffener profile:  $I_y = 0.89 \text{ cm}^4$

**Maximum window frame thickness:** Can be used regardless of the window frame thickness

Standard window connection



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Window connection via clip fixing

### Clip fixing, plastic

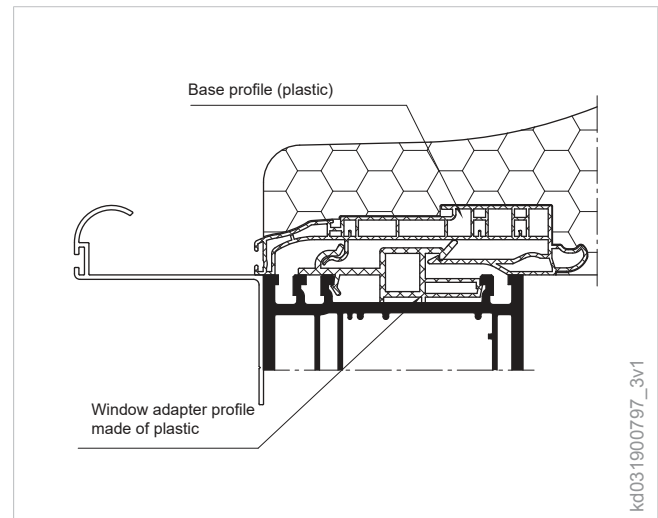
**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- The plastic window adapter profile, white, is clipped into the respective plastic window or screwed in via a universal window adapter profile for all other windows.
- The base profile is integrated/bonded in the insulating wedge.
- Available for all box sizes

**Can be used for the following window frame thicknesses:**

- Min. 70 mm, without maximum limitation

### Plastic clip fixing for window connection



### Clip fixing, steel

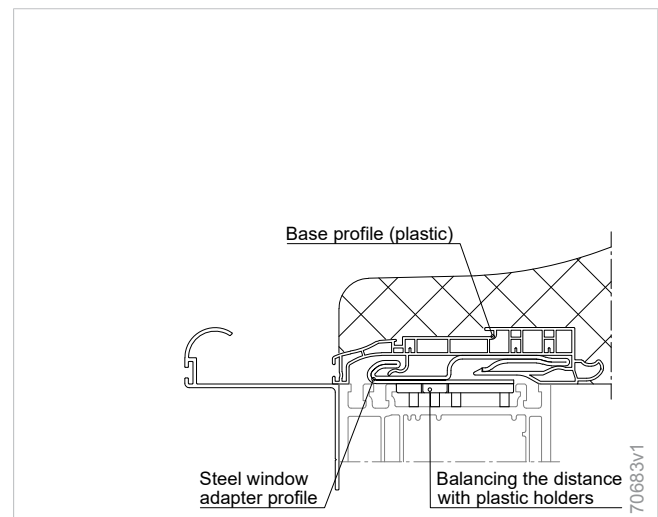
**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- Recommended for order widths of 1600 mm or greater for increased window rigidity
- Short and long models available
- The steel window adapter profile is screwed directly onto the window frame from above, aligned using plastic holder, available for all common window profiles (the window adapter profile is bolted directly onto the window frame for smooth windows or windows without allocation).
- The base profile is integrated/bonded in the insulating wedge.
- Model available for all box sizes
- Area moment of inertia, steel window adapter profile:
  - Long profile  $I_y = 8.3 \text{ cm}^4$
  - Short profile  $I_y = 2.4 \text{ cm}^4$

**Can be used for the following window frame thicknesses:**

- Long clip profile: 70-92 mm: With a window frame thickness of 92 mm or greater, we recommend that the short window adapter profile always be used for ease of installation.
- Short clip profile: min. 70 mm, without maximum limitation

### Steel clip fixing for window connection



## Additional product information

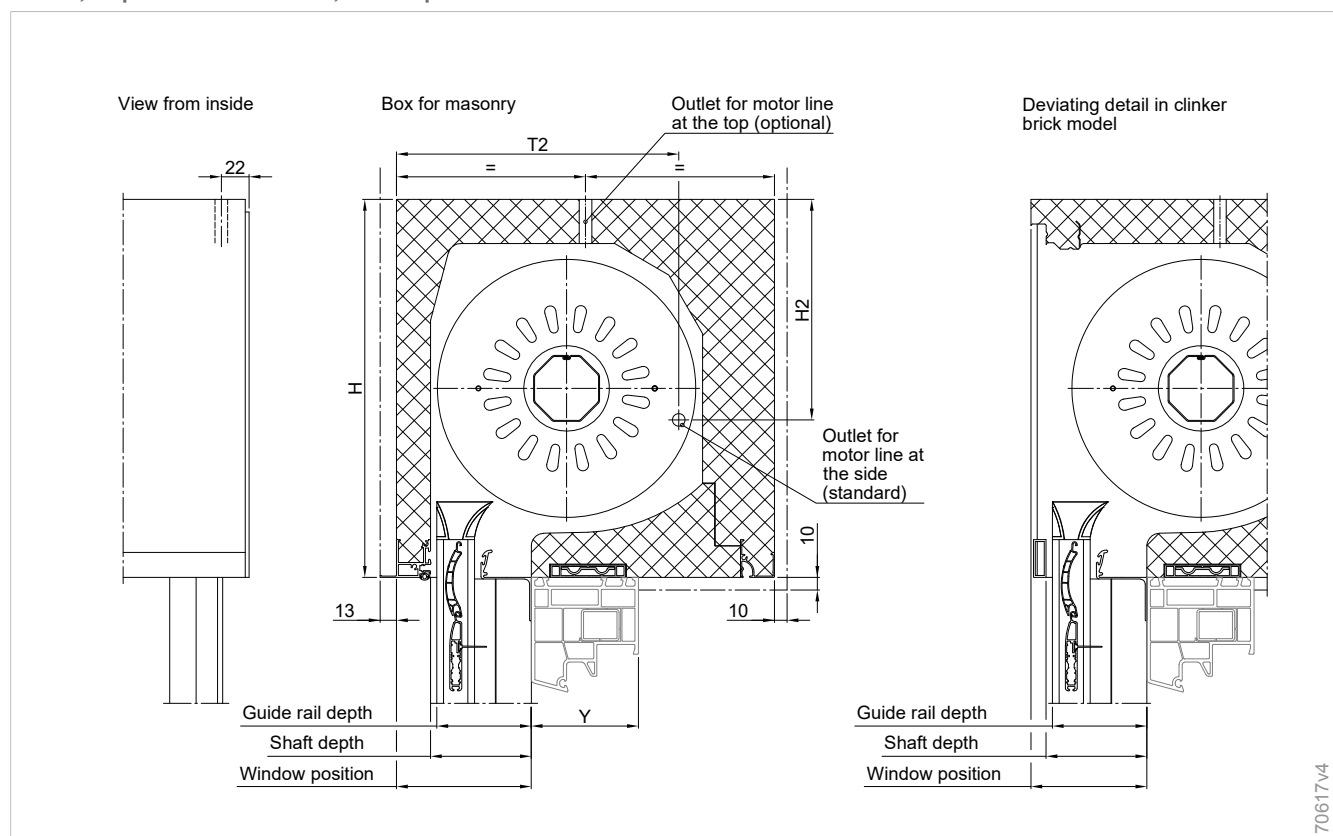
## Drive details, motor

### Dimensioning of outlet for motor line

|                              | Dimension Y max. | Dimension T2 | Dimension H2 |                              | Dimension Y max. | Dimension T2 | Dimension H2 |
|------------------------------|------------------|--------------|--------------|------------------------------|------------------|--------------|--------------|
| 80 shaft depth               |                  |              |              | 120 shaft depth              |                  |              |              |
| Box for masonry              |                  |              |              | Box for masonry              |                  |              |              |
| 240x250                      | 133              | 199          | 127          | 300x250                      | 153              | 224          | 127          |
| 300x250                      | 193              | 224          | 127          | 365x250                      | 218              | 224          | 127          |
| 365x250                      | 258              | 224          | 127          | 300x300                      | 153              | 224          | 175          |
| 300x300                      | 193              | 224          | 175          | 365x300                      | 218              | 224          | 175          |
| 365x300                      | 258              | 224          | 175          | Box for clinker construction |                  |              |              |
| Box for clinker construction |                  |              |              | 300x300                      | 169              | 224          | 175          |
| 300x300                      | 209              | 224          | 175          | 365x300                      | 234              | 224          | 175          |
| 365x300                      | 274              | 224          | 175          |                              |                  |              |              |

**Product variant with end stopper:** no end stopper in combination with aluminium guide rails; end stopper for plastic guide rails.

### NA-RO, inspection from outside, motor operation drive details



Guide rail depth:

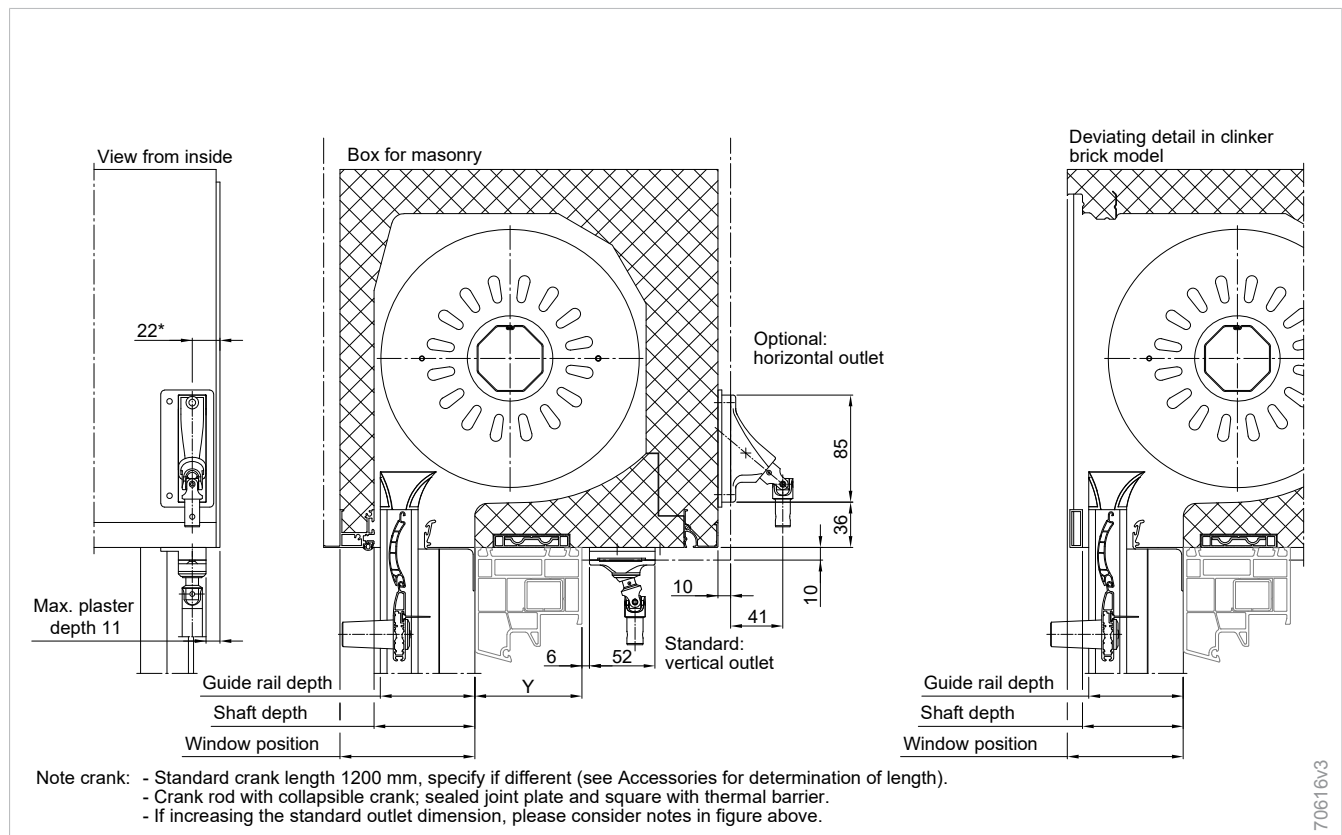
- Shaft size 80: Plastic guide rails 75 mm / aluminium guide rails 85 mm
- Shaft size 120: Plastic guide rails 115 mm / aluminium guide rails 125 mm

## Drive details, crank

### Dimensioning of gear outlet, crank operation

|                              | Dimension Y max, vertical gear outlet | Dimension Y max, horizontal gear outlet | Window position |
|------------------------------|---------------------------------------|-----------------------------------------|-----------------|
| 80 shaft depth               |                                       |                                         |                 |
| Box for masonry              |                                       |                                         |                 |
| 240x250                      | 71                                    | 133                                     | 107             |
| 300x250                      | 131                                   | 193                                     | 107             |
| 365x250                      | 131                                   | 258                                     | 107             |
| 300x300                      | 131                                   | 193                                     | 107             |
| 365x300                      | 131                                   | 258                                     | 107             |
| Box for clinker construction |                                       |                                         |                 |
| 300x300                      | 147                                   | 209                                     | 91              |
| 365x300                      | 147                                   | 274                                     | 91              |
| 120 shaft depth              |                                       |                                         |                 |
| Box for masonry              |                                       |                                         |                 |
| 300x250                      | 91                                    | 153                                     | 147             |
| 365x250                      | 91                                    | 218                                     | 147             |
| 300x300                      | 91                                    | 153                                     | 147             |
| 365x300                      | 91                                    | 218                                     | 147             |
| Box for clinker construction |                                       |                                         |                 |
| 300x300                      | 107                                   | 169                                     | 131             |
| 365x300                      | 107                                   | 234                                     | 131             |

### NA-RO, inspection from outside, belt operation drive details



#### Guide rail depth:

- Shaft size 80: Plastic guide rails 75 mm / aluminium guide rails 85 mm
- Shaft size 120: Plastic guide rails 115 mm / aluminium guide rails 125 mm

## Drive details, belt

### Dimensioning of belt outlet

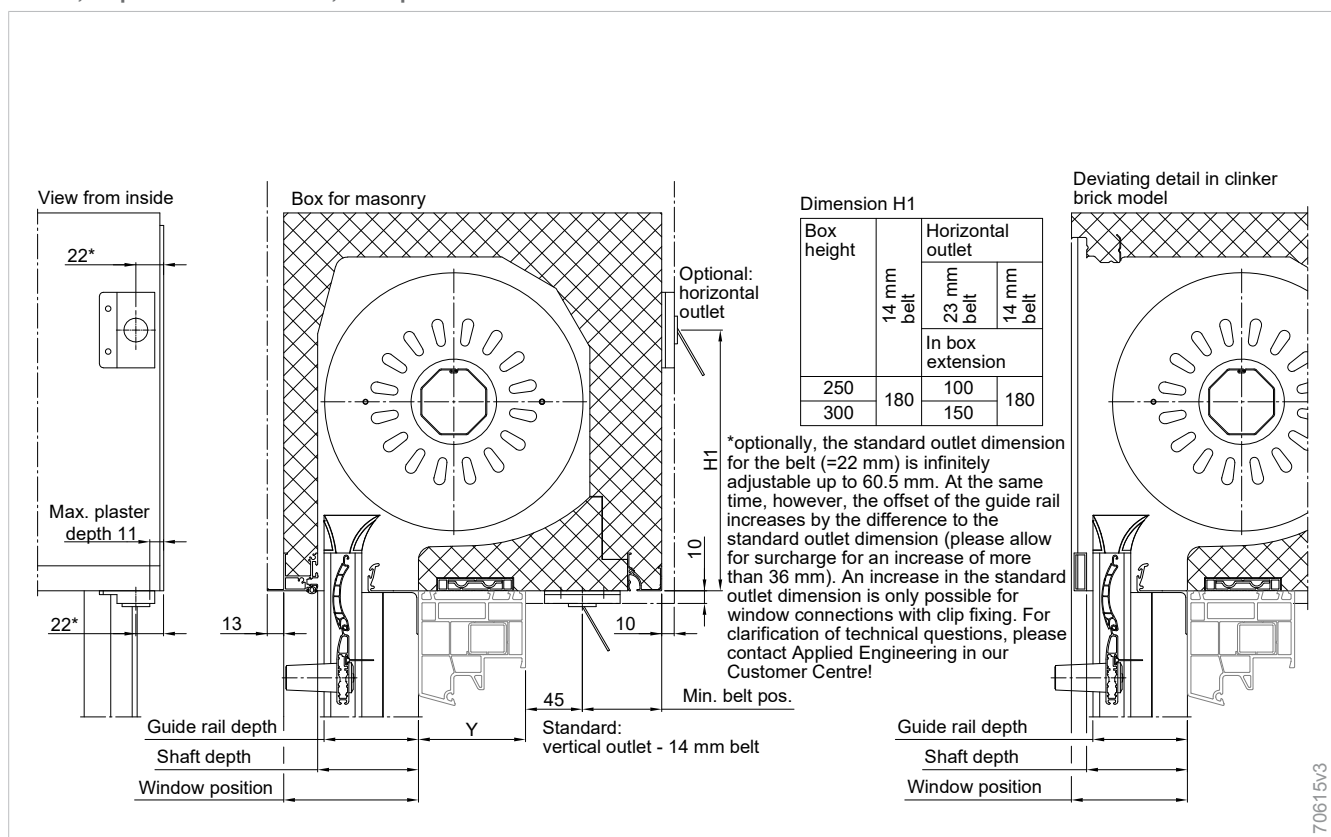
|                              | Dimension Y max, vertical belt outlet | Dimension Y max, horizontal gear outlet | Window position | Min. belt pos. |
|------------------------------|---------------------------------------|-----------------------------------------|-----------------|----------------|
| 80 shaft depth               |                                       |                                         |                 |                |
| Box for masonry              |                                       |                                         |                 |                |
| 240x250                      | 61                                    | 133                                     | 107             | 27             |
| 300x250                      | 91                                    | 193                                     | 107             | 57             |
| 365x250                      | 91                                    | 258                                     | 107             | 122            |
| 300x300                      | 91                                    | 193                                     | 107             | 57             |
| 365x300                      | 91                                    | 258                                     | 107             | 122            |
| Box for clinker construction |                                       |                                         |                 |                |
| 300x300                      | 107                                   | 209                                     | 91              | 57             |
| 365x300                      | 107                                   | 274                                     | 91              | 122            |
| 120 shaft depth              |                                       |                                         |                 |                |
| Box for masonry              |                                       |                                         |                 |                |
| 300x250                      | 51                                    | 153                                     | 147             | 57             |
| 365x250                      | 51                                    | 218                                     | 147             | 122            |
| 300x300                      | 51                                    | 153                                     | 147             | 57             |
| 365x300                      | 51                                    | 218                                     | 147             | 122            |
| Box for clinker construction |                                       |                                         |                 |                |
| 300x300                      | 67                                    | 169                                     | 131             | 57             |
| 365x300                      | 67                                    | 234                                     | 131             | 122            |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

### NA-RO, inspection from outside, belt operation drive details



Shaft roller shutters

Supplementary accessories

Components

Drive variants

Guide rail depth:

- Shaft size 80: Plastic guide rails 75 mm / aluminium guide rails 85 mm
- Shaft size 120: Plastic guide rails 115 mm / aluminium guide rails 125 mm

## Group units

Multi-part roller shutters with continuous boxes and individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** always seen from inside, from left to right
- **Beginning and end position:** please indicate on order form
  - 2-part units: beginning position – end position
  - 3-part units: beginning position – middle position – end position

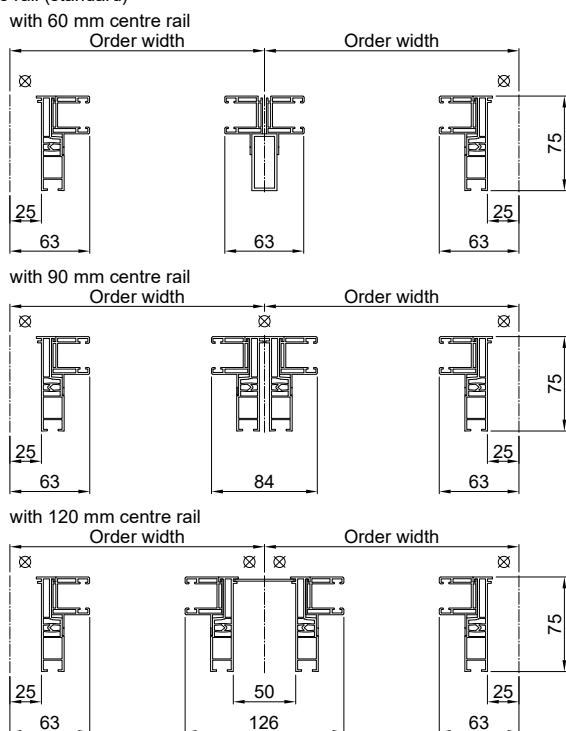
- Maximum continuous box width: 5000 mm
- Maximum number of individual roller shutter curtains within a continuous box: 3
- Specified offsets are minimum offsets; larger offsets are possible with window connections with clip fixing
- Tabs are compulsory depending on the centre situation (note surcharge!)
  - For masonry boxes: two pieces (for inner and outer sides of the box; the tabs are each positioned on the outside of the box)
  - For clinker brick boxes: one piece (for inner side of box)

Coupling of roller shutter curtains:

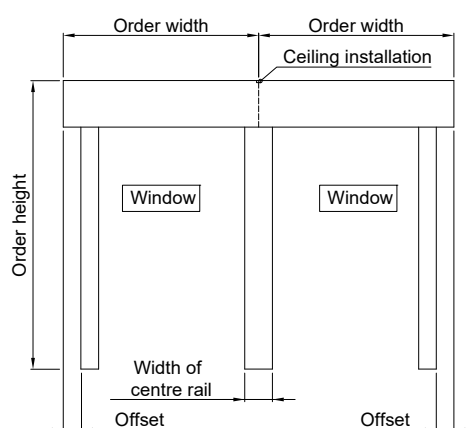
- Max. 3 roller shutter curtains can be coupled, taking the max. drive areas into consideration
- When using the:
  - Size 60 central middle rail, a drive is not possible (drives must be located externally)
  - Size 90 central middle rail, a maximum of 1 drive is possible
  - Size 120 central middle rail, 2 drives are possible

### Order data for group units (same height units)

Plastic guide rail (standard)



⊗ = possible drive position



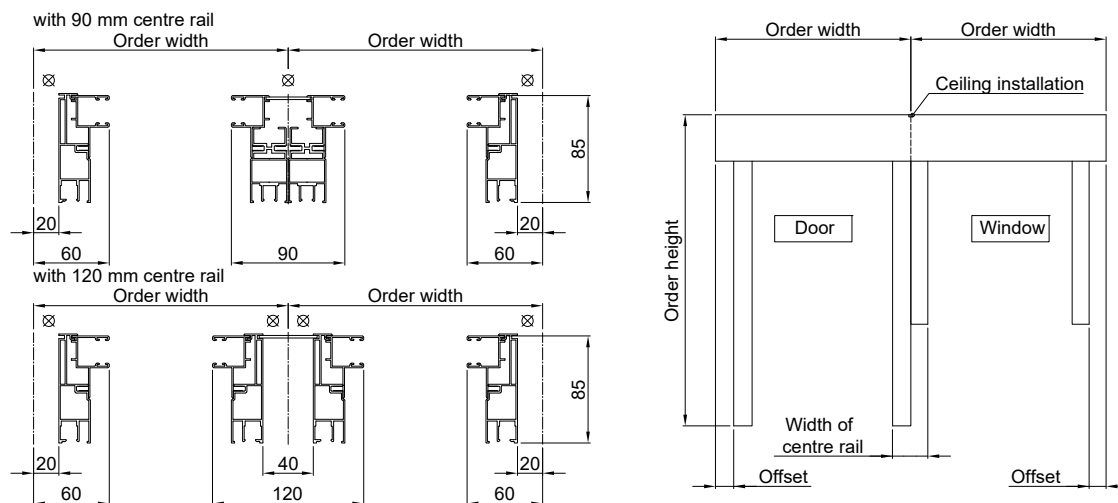
71000v1





## Order data for group units (door/window combinations)

### Aluminium guide rail



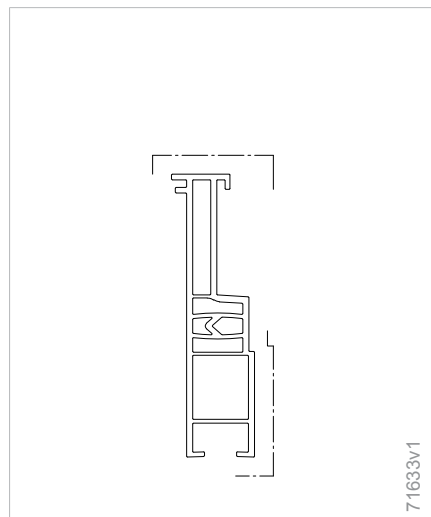
⊗ = possible drive position

71003v1

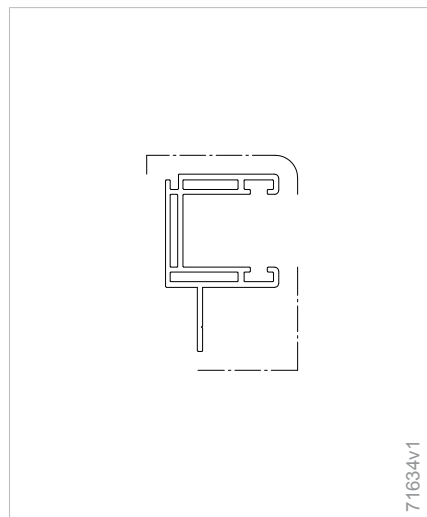
## Laminated guide rails

To optimally match the appearance of the sun shading system to the on-site laminated plastic windows, visible plastic parts of the sun shading system can optionally be supplied in a laminated design. 8 standard decor films and many special decor films are available to choose from.

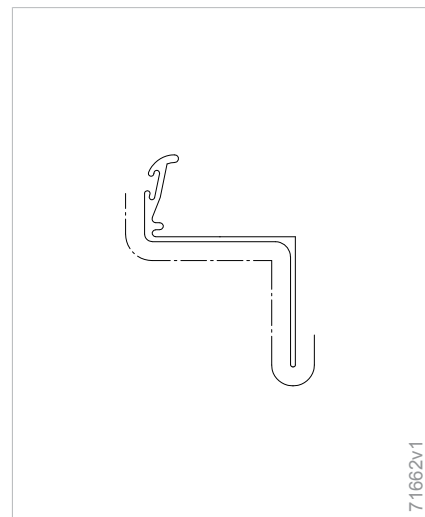
### Support profile 18-74, laminated areas



### Guide rail 30-46, laminated areas



### Unwind strip, laminated areas



+ see "Colours for decor films", Page 21

## Integrated insect screen roller blind (optional)

### Construction limit values with integrated insect screen roller blind

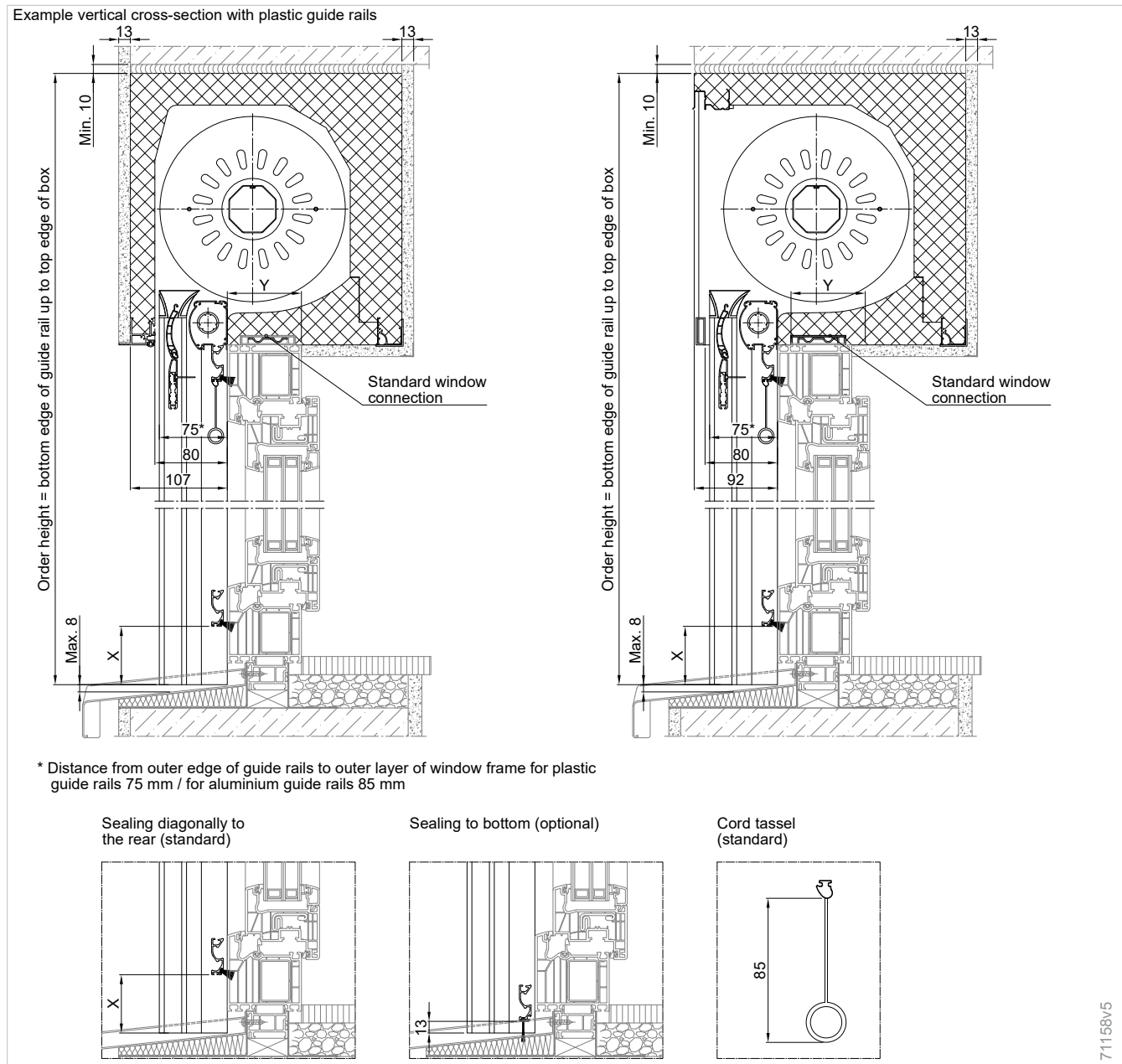
| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 750 mm        | 2000 mm       | -              | 2700 mm        | 5.0 m <sup>2</sup> |

#### Type-dependent limitations:

We supply insect screen guide rails C0 anodised as standard.

**Drawings for top-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.**

### NA-RO, inspection from outside, with integrated insect screen roller blind



+ see "Integrated insect screen", Page 246

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

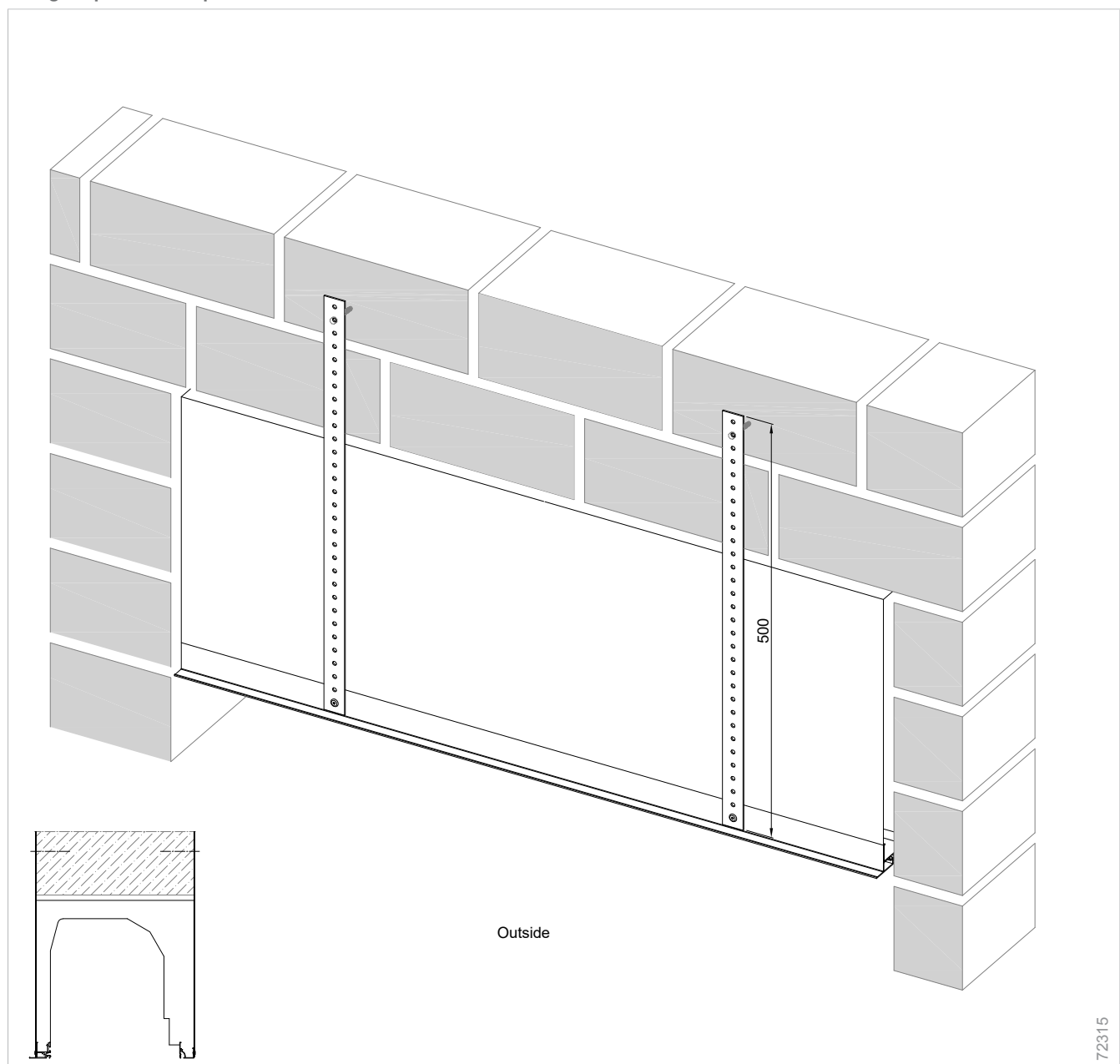
Drive variants

Standards

## Box fastening via perforated tapes

- Perforated tapes are used as standard with a box width of 1500 mm or greater.
  - 2 or 3 perforated tapes are used respectively on each side for a box width of 3000 mm or 4500 mm or greater.
  - Perforated tape is located on the side cover to the inside and on the outside of the box.
  - Perforated tape length: 500 mm
- If the use of perforated tapes is not possible, e.g. in intricate ceiling constructions, then they can be replaced by the customer with ceiling fasteners (please note surcharge for ceiling installation).
  - Perforated tapes only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

### Fixing via perforated tape

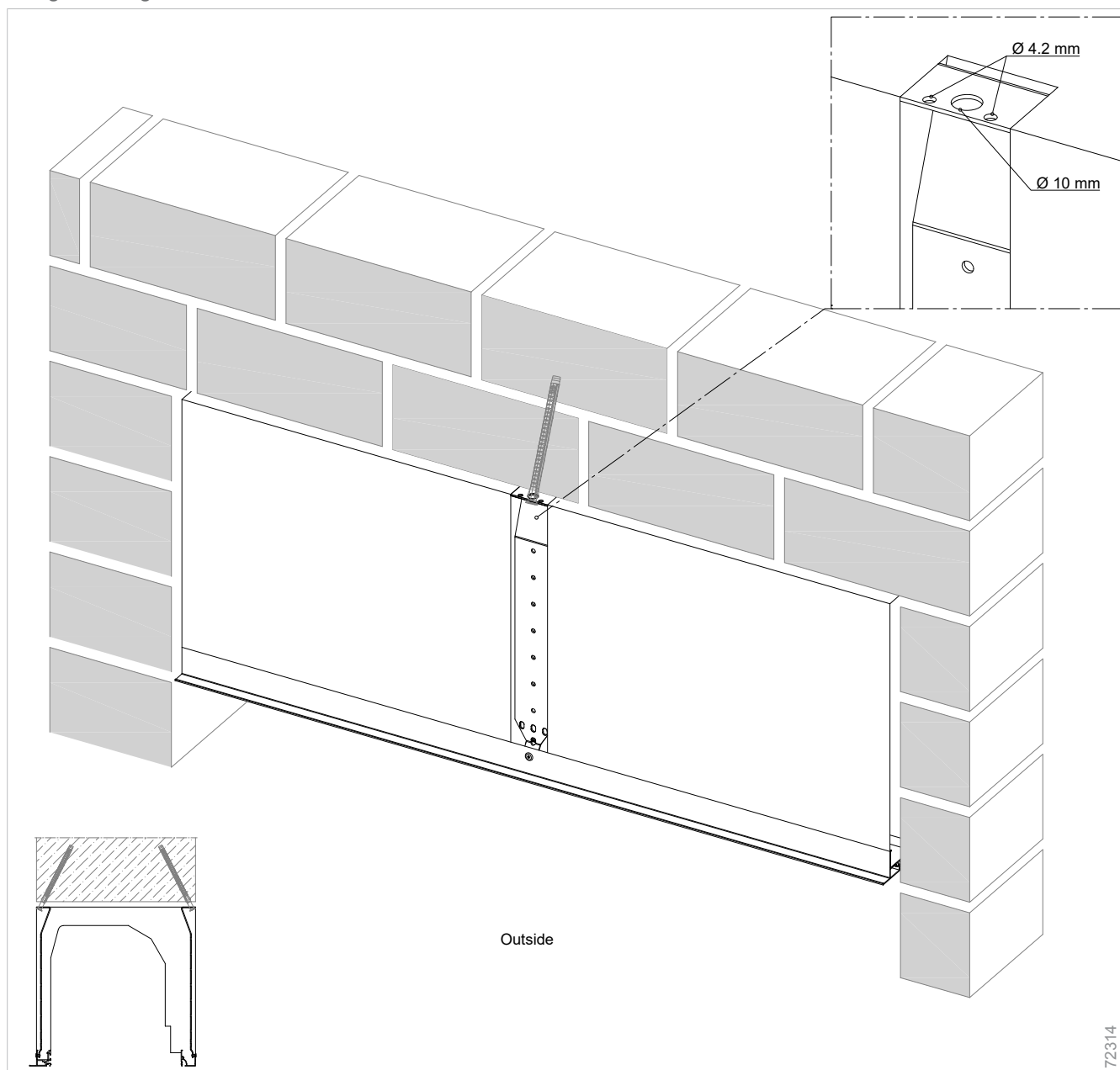


## Box fastening via ceiling fasteners

- Top-mounted boxes for new buildings can be designed as an alternative to or in addition to the perforated tapes with ceiling fasteners on request.
- Please note the surcharge for each ceiling fastener.

- To order a model with a ceiling fasteners, please use the supplemental Box Accessories order form, art. no. 2010110.
- Ceiling fasteners only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

### Fixing via ceiling installation



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

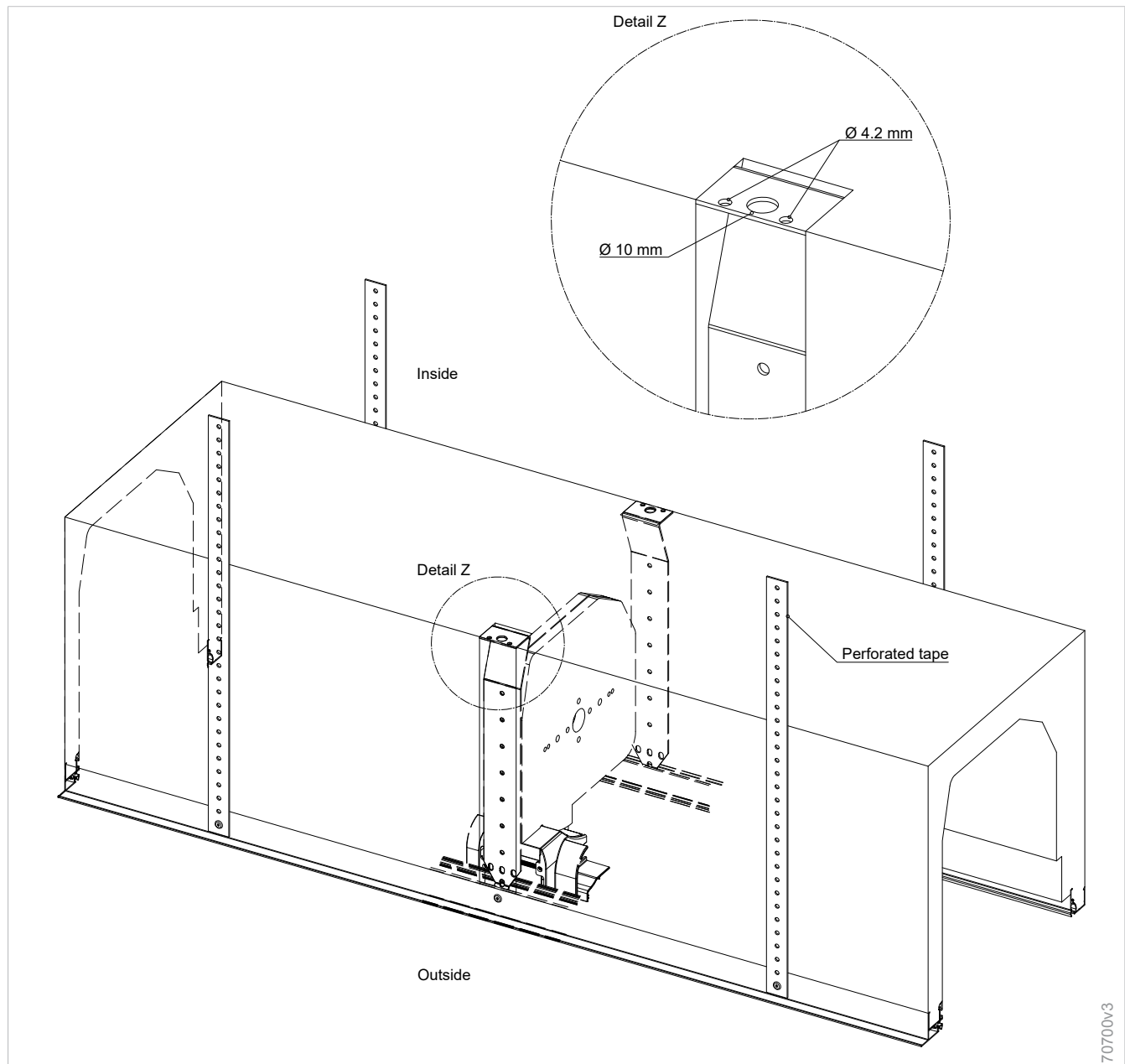
Standards

## Box fastening for group units

### Ceiling fasteners and perforated tape:

- Ceiling fasteners are used as standard in centre situations. Note surcharge for each ceiling fastener in addition to the surcharge for the centre situation. Other additional ceiling fasteners are optionally available.
  - In addition to the ceiling fasteners for centre situations, the box is designed with perforated tape for widths greater than 1500 mm (length of perforated tape 500 mm). 2 or 3 perforated tapes are used respectively on each side for a box width of 3000 mm or 4500 mm or greater.
  - Perforated tape is located on the side cover to the inside and on the outside of the box.
- To order a model with a ceiling fasteners, please use the supplemental Box Accessories order form, art. no. 2010110.
  - Ceiling fasteners and perforated tapes only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

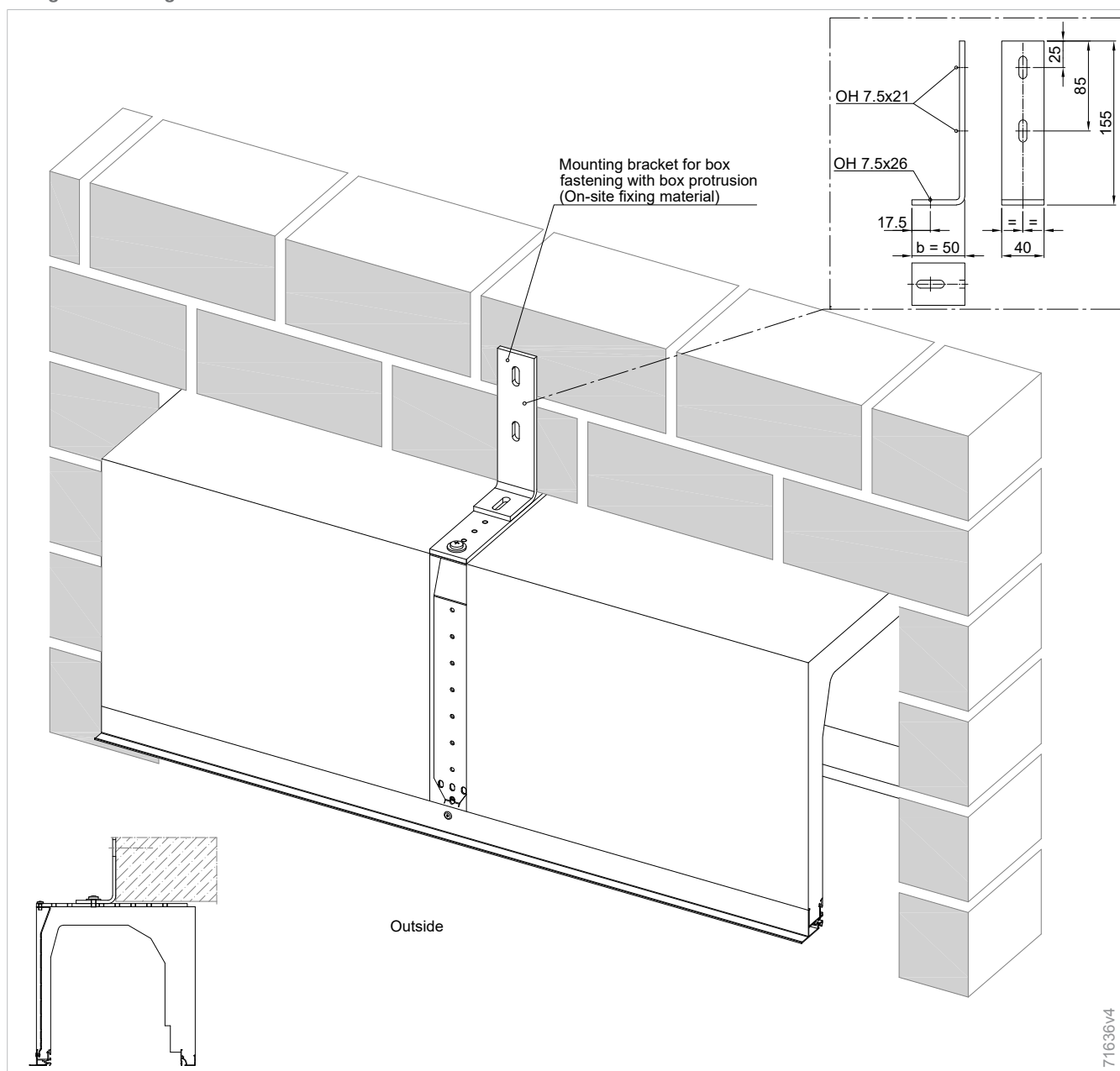
### Tab for ceiling installation for group units



## Box fastening for box protrusion with mounting bracket

- Mounting bracket for receiving the ceiling fastener with box protrusion (e.g. for EIFS)
  - The prerequisite for installation of the mounting bracket is that it is equipped with ceiling fasteners. Please note the additional surcharge for each ceiling fastener.
- To order a model with a ceiling fastener and mounting bracket, please use the supplemental Box Accessories order form, art. no. 2010110.
  - Ceiling fasteners only prevent the box from sagging. This does not ensure that any load is transferred from the window or that wind loads are absorbed.

### Fixing via mounting bracket



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Structural consoles

**The planner or customer is responsible for determining the structural strength (wind load) on the basis of the window profile selected.**

If the required standard classes are not achieved either by the window frame or a window frame reinforcement, the structural strength can be improved by using structural consoles.

**Load bearing capacity of the structural console: 1.0 kN**

The load-bearing capacity only applies under the following on-site conditions:

- Mounting substructure with sufficient load-bearing capacity
- Use of suitable fixing material
- Rests on the full surface of the console, pressure resistant lining

**Number of structural consoles:** Specify the required quantity when ordering.

To check the structural strength and determine any required structural consoles, our Structural console tool is available to you. You can find this in myWAREMA under Services & Tools.

**Delivery condition:** Structural consoles are embedded in the box and must be firmly screwed to the structure.

**Attention must be paid to:**

- The structural consoles are aligned symmetrically, if not specified otherwise.
- The distance between the middle side cover/side cover and structural console must be at least 150 mm.

**Usability of structural consoles depending on box design and window connection:**

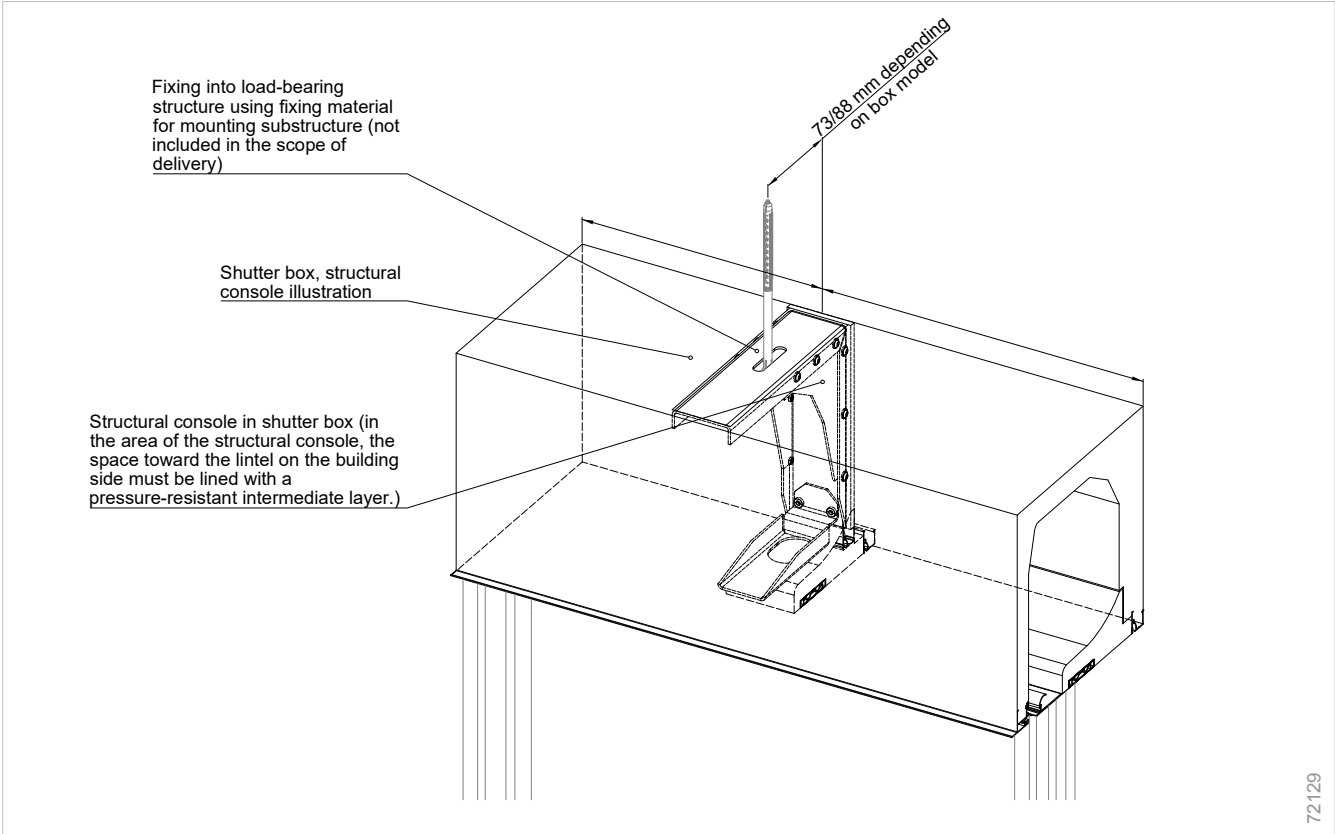
| Box size/design              | Window connection using plastic profile with stiffener | Plastic clip fixing for window connection | Steel clip fixing for window connection |
|------------------------------|--------------------------------------------------------|-------------------------------------------|-----------------------------------------|
| Box for masonry              |                                                        |                                           |                                         |
| 240x250 - Size 80 shaft      | -                                                      | -                                         | -                                       |
| 300x250 - Size 80 shaft      | X                                                      | -                                         | X                                       |
| 365x250 - Size 80 shaft      | X                                                      | -                                         | X                                       |
| 300x300 - Size 80 shaft      | X                                                      | -                                         | X                                       |
| 365x300 - Size 80 shaft      | X                                                      | -                                         | X                                       |
| 240x250 - Size 120 shaft     | -                                                      | -                                         | -                                       |
| 300x250 - Size 120 shaft     | -                                                      | -                                         | -                                       |
| 365x250 - Size 120 shaft     | X                                                      | -                                         | -                                       |
| 300x300 - Size 120 shaft     | -                                                      | -                                         | -                                       |
| 365x300 - Size 120 shaft     | X                                                      | -                                         | X                                       |
| Box for clinker construction |                                                        | -                                         |                                         |
| 300x300 - Size 80 shaft      | X                                                      | -                                         | X                                       |
| 365x300 - Size 80 shaft      | X                                                      | -                                         | X                                       |
| 300x300 - Size 120 shaft     | -                                                      | -                                         | -                                       |
| 365x300 - Size 120 shaft     | X                                                      | -                                         | -                                       |

**Design of structural consoles for "Window connection via plastic profile with stiffener profile":** To fix in place, the insulating wedge must be screwed to the window profile every 250 mm from below.

**NA-RO inspection from outside combined with large cover frame depth:**

May result in restrictions in the use of structural consoles in some cases. Speak to our Applied Engineering team about this.

NA-RO, inspection from outside, model with structural console

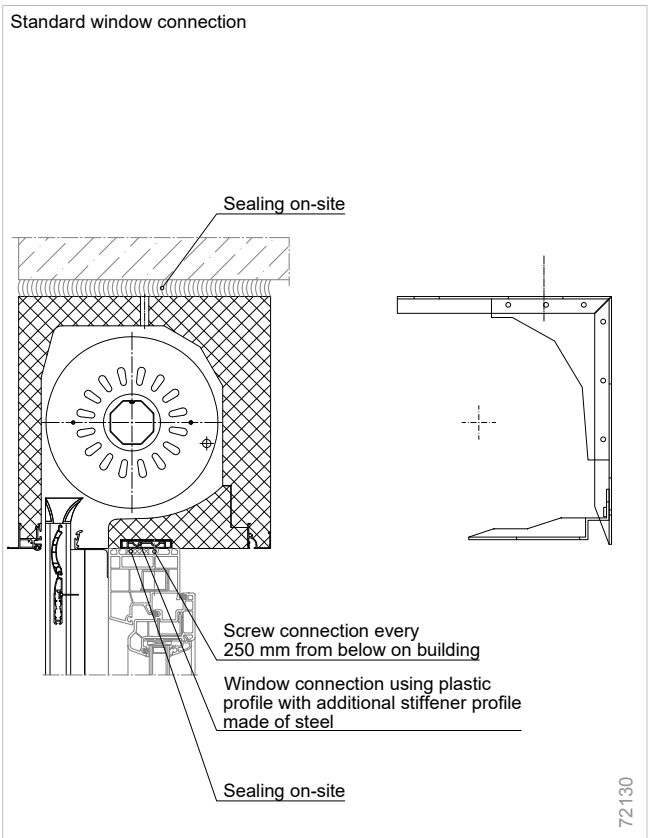


Planning

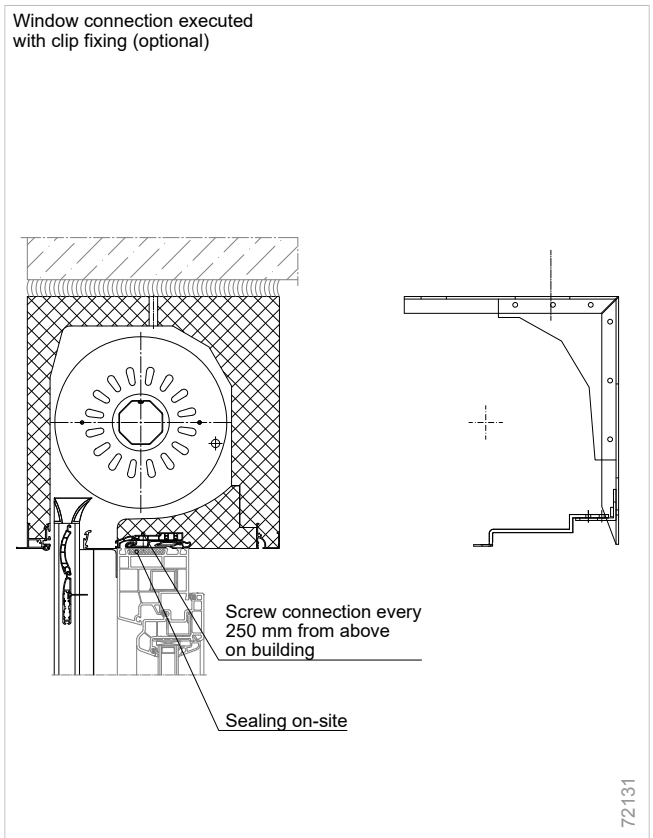
Front-mounted roller shutters

Top-mounted roller shutters

Structural console NA-RO inspection from outside, standard window connection



Structural console NA-RO, inspection from outside, clip fixing window connection



Shaft roller shutters

Supplementary accessories

Components

Drive variants



## Box with integrated fan

### Passive fan for ventilating closed rooms (supply air)

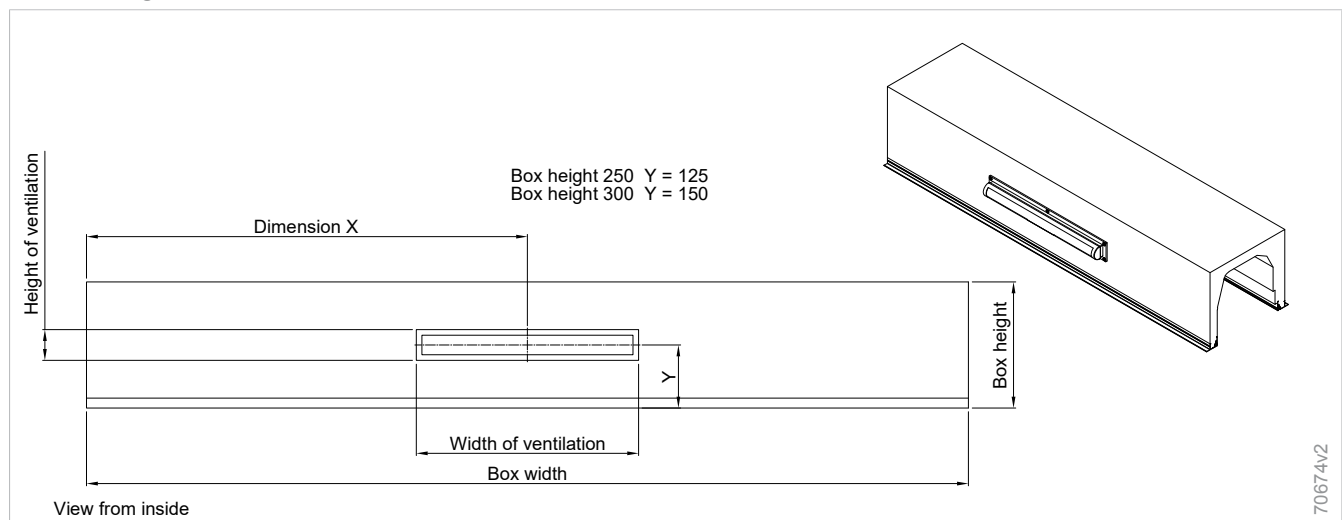
**Available brands:** Siegenia AEROMAT midi, AERECO ZUROH 100 or ZUROH 110

- Can be used as an air vent opening for a central exhaust air system
- Pressure compensation between outside and inside air (pressure differential principle)
- Available for internal and external revisions, for all box dimensions
- Specify dimension X, brand and number of desired fan elements
- Data sheet upon request

**In general, only supply air systems may be used (exhaust air is not possible via the lintel box).**

To order the product variant with integrated fan system, use the supplemental order form for Box Accessories, art. no. 2010110.

### Box with integrated fan



## Box with ventilation cutting

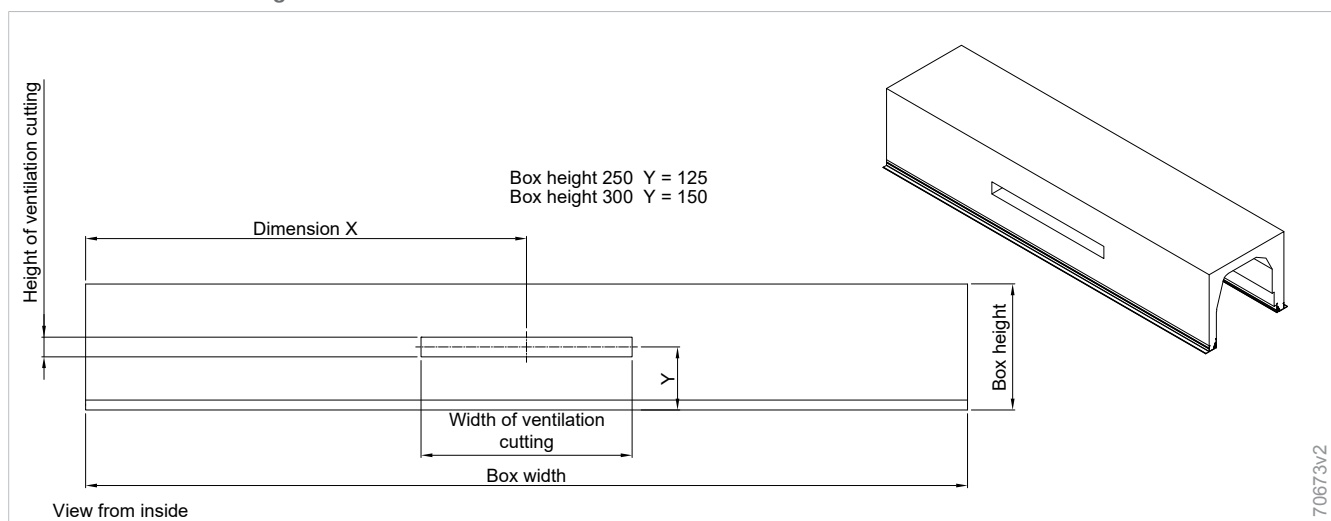
**Ventilation cutting for on-site fan unit to hold a passive window fan for ventilating closed rooms (supply air)**

- Specify number of milled areas, brand and dimension X
- Data sheet upon request
- Individual technical clarification about product variants with ventilation cutting can be obtained from Applied Engineering

**In general, only supply air systems may be used (exhaust air is not possible via the lintel box).**

To order the product variant with ventilation cutting, use the supplemental order form for Box Accessories, art. no. 2010110.

### Box with ventilation cutting



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

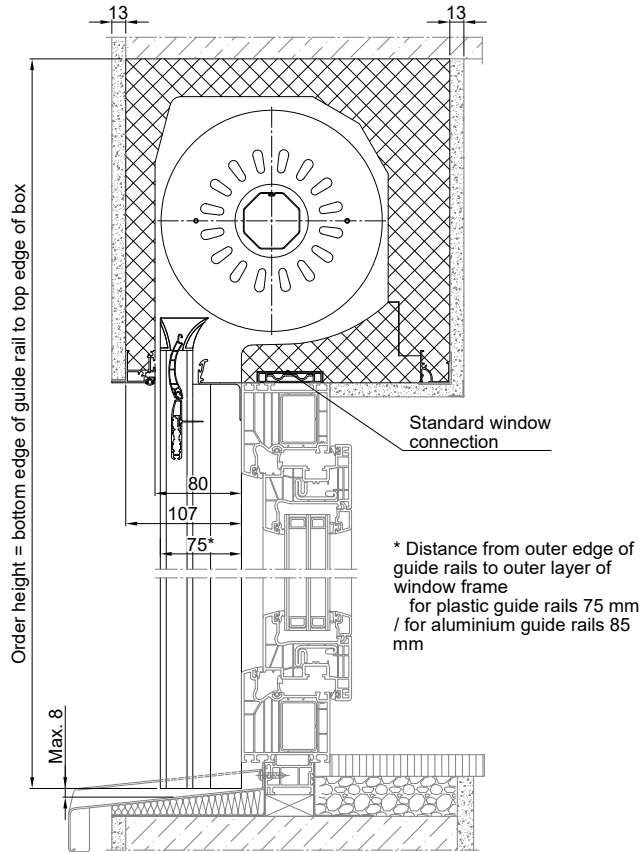
Drive variants

Standards

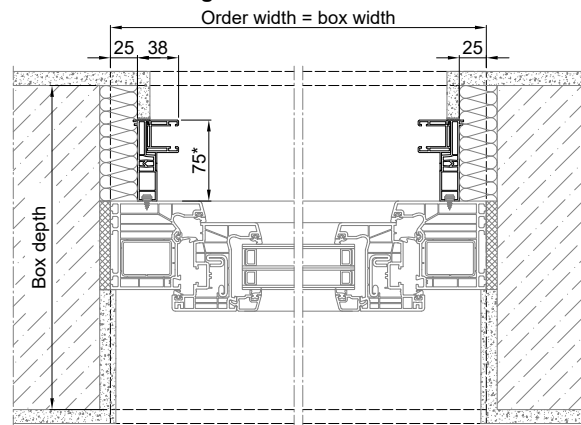
## Mounting examples

### Box for masonry – shaft opening 80 mm

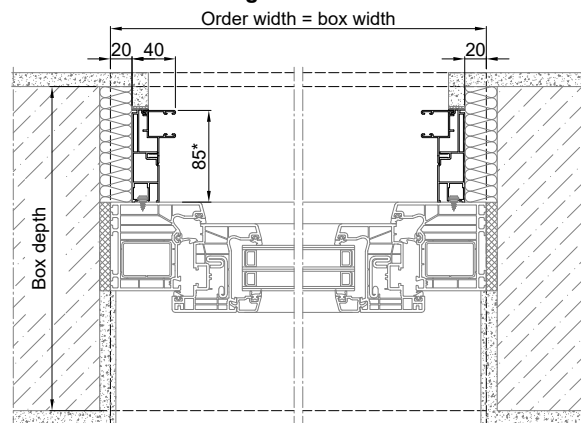
Example vertical cross-section with plastic guide rails



Plastic guide rails



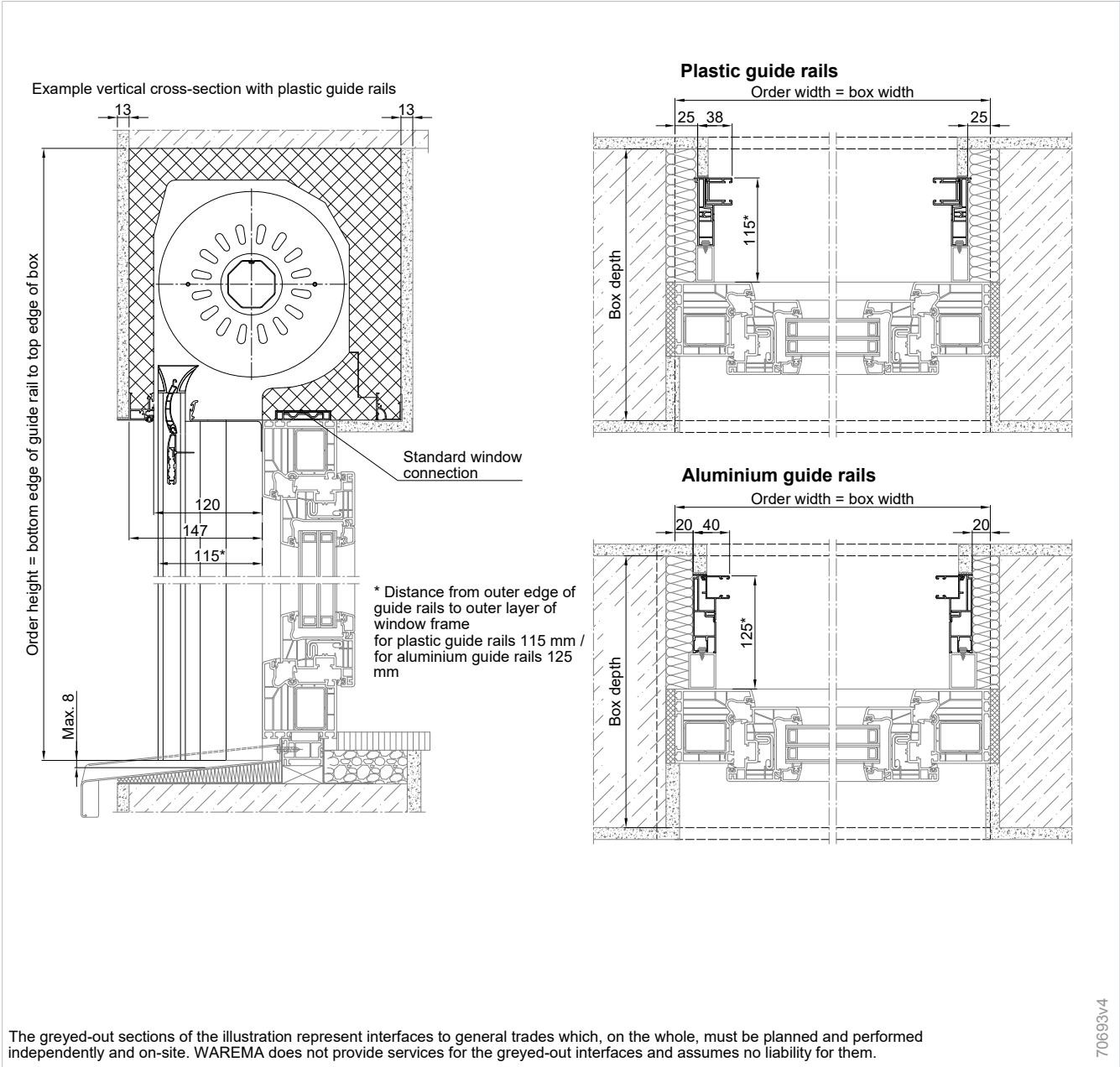
Aluminium guide rails



The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

70692v4

Box for masonry – shaft opening 120 mm



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

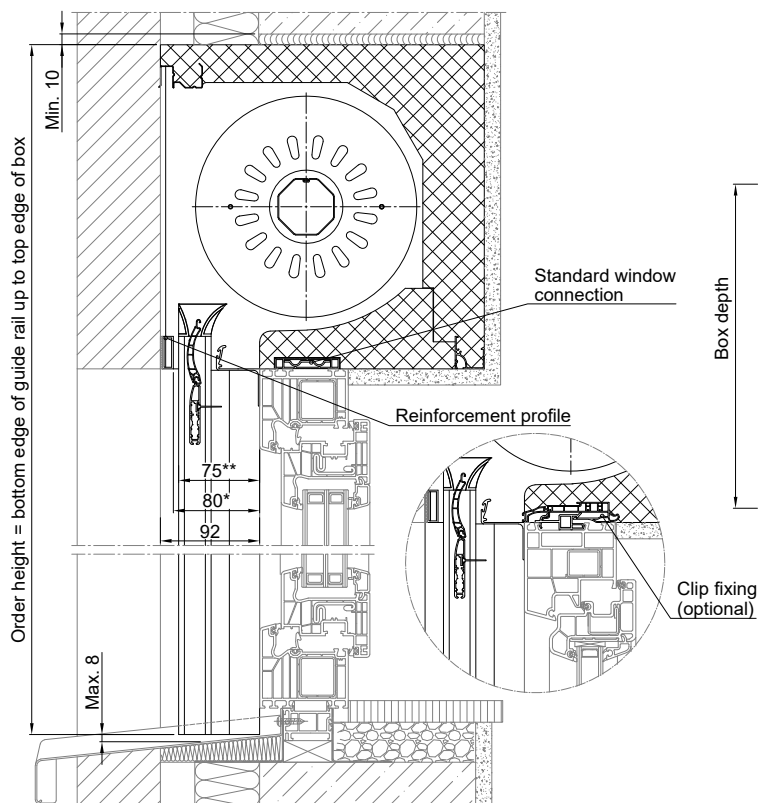
Supplementary accessories

Components

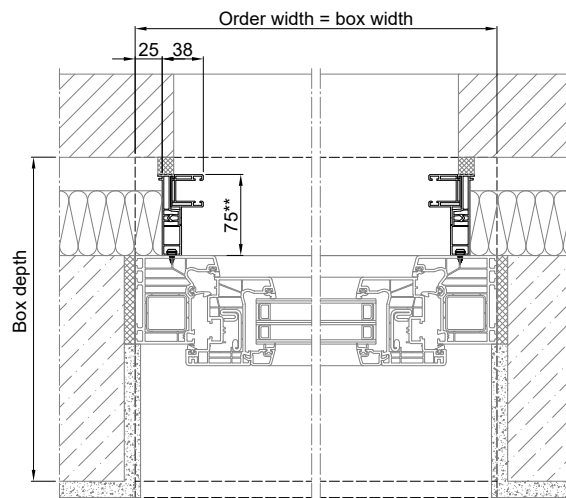
Drive variants

Standards

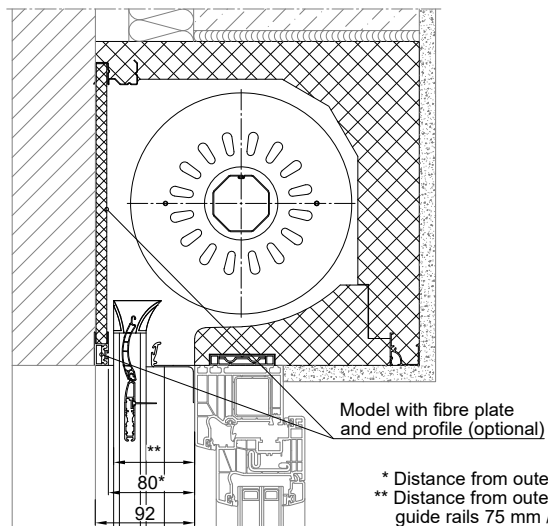
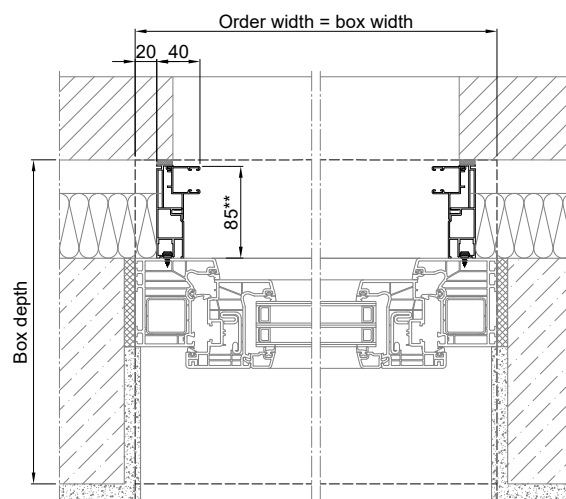
Example vertical cross-section with plastic guide rails



Plastic guide rails



Aluminium guide rails



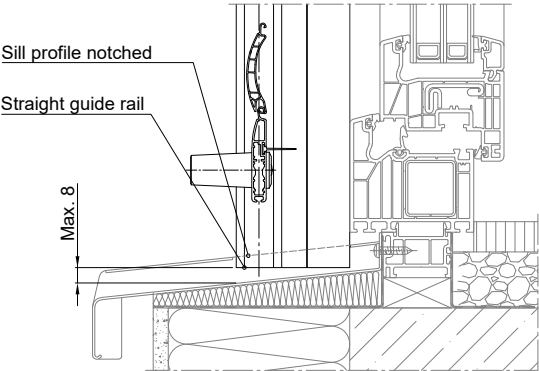
- \* Distance from outer edge of box to outer layer of window frame
- \*\* Distance from outer edge of guide rails to outer layer of window frame for plastic guide rails 75 mm / for aluminium guide rails 85 mm

The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

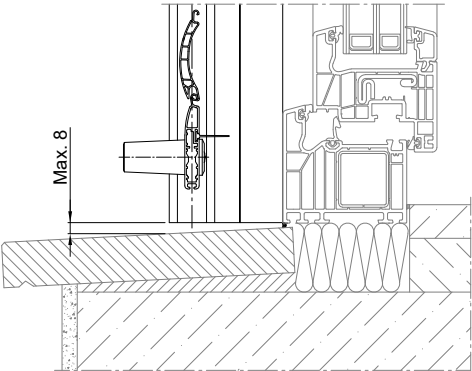
71214v7

Window sill connection for aluminium/stone window sill

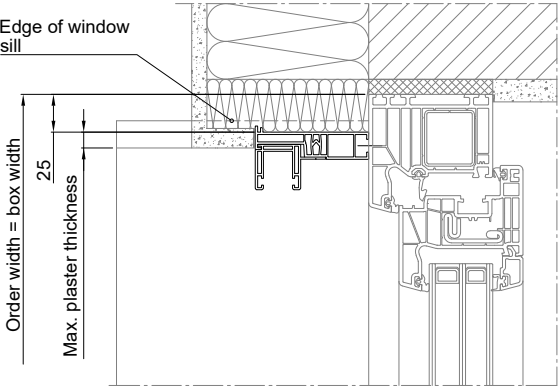
Aluminium window sill



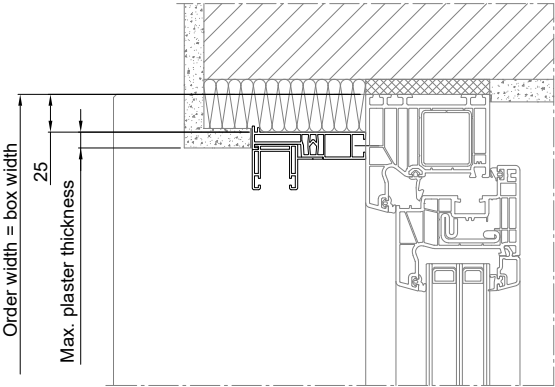
Stone window sill



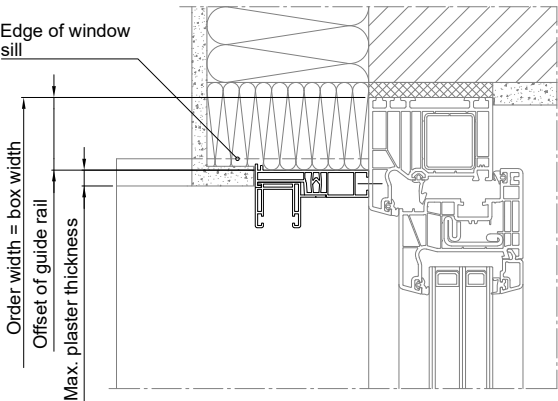
Guide rail, embedded in plaster - standard offset



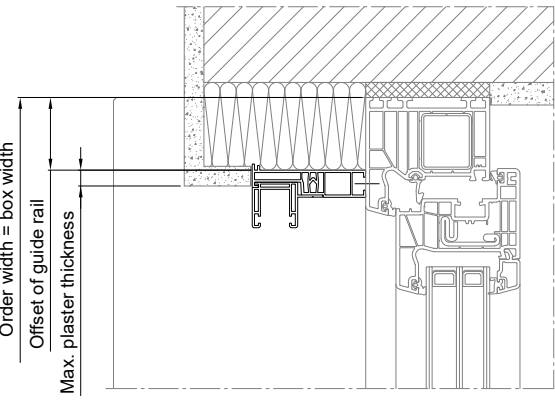
Guide rail, embedded in plaster - standard offset



Guide rail, embedded in plaster - with larger offset (optional)



Guide rail, embedded in plaster - with larger offset (optional)



70621v2

Planning  
Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Top-mounted roller shutters  
<https://docs.warema.com/1.1314.0>









# Top-mounted roller shutters

## Top-mounted roller shutters AU-RO

### Economical

The box is fixed to the window and is installed at the same time as the window.

### Sophisticated

Perfectly combinable with external venetian blinds thanks to the same box sizes.

### Stable

Safe diversion of wind loads possible by integrating structural consoles.



### Construction limit values

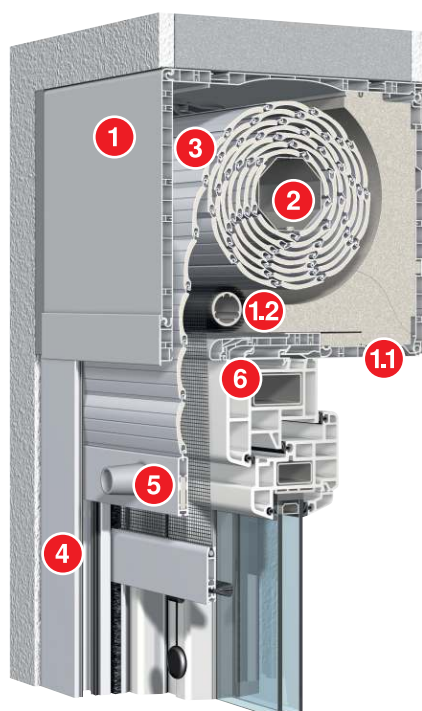
|                                   |                    |
|-----------------------------------|--------------------|
| Maximum order width               | 3000 mm            |
| Maximum order height              | 3500 mm            |
| Maximum order area                | 9.3 m <sup>2</sup> |
| Maximum order width of group unit | 3000 mm            |



### Product characteristics

- Box made of plastic
- Window connection via clip fixing
- Insect screen, optional

## Components



|     |                   |   |                                       |
|-----|-------------------|---|---------------------------------------|
| 1   | Box               | 3 | Roller shutter curtain                |
| 1.1 | Inspection cover  | 4 | Lateral guidance                      |
| 1.2 | Window connection | 5 | Bottom rail                           |
| 2   | Shaft             | 6 | Insect screen roller blind (optional) |

### Box

#### Plastic basic model

|                     |                                 |
|---------------------|---------------------------------|
| Material            | Plastic, hollow chamber profile |
| Surface             | Plastic                         |
| Optional surface    | Laminated                       |
| Material colour     | White                           |
| Box sizes           | 175, 200, 240                   |
| Box model           | Closed on 4 sides               |
| Unwinding direction | Right-rolling blind             |

#### + Side cover

##### Side covers for top-mounted roller shutters

|                 |         |
|-----------------|---------|
| Material        | Plastic |
| Material colour | White   |

- Side cover incl. side cover insulation
- Side covers are brown for boxes in laminated designs.

#### + Inspection cover

##### Inspection cover AU-RO

|                  |                                 |
|------------------|---------------------------------|
| Material         | Plastic, hollow chamber profile |
| Surface          | Plastic                         |
| Optional surface | Laminated                       |
| Material colour  | White                           |

- Inspection only from inside the room
- Inspection access possible from below or rear

#### + Front cover, optional

##### Model with aluminium front cover

|          |                   |
|----------|-------------------|
| Material | Aluminium, folded |
| Surface  | Powder-coated     |

+ see "Model with aluminium front cover", Page 167

+ see "Basic model, plastic", Page 167

##### Plaster model, external plaster base profile (optional)

|                     |                                 |
|---------------------|---------------------------------|
| Material            | Plastic, hollow chamber profile |
| Surface             | Plastic                         |
| Material colour     | White                           |
| Box sizes           | 175, 200, 240                   |
| Box model           | Closed on 4 sides               |
| Unwinding direction | Right-rolling blind             |

#### + Plaster base profile

##### Plaster base profile, outside

- 25 mm
- 50 mm

Plaster base profile, optional:

- Plaster base profile, shortened

+ see "Plaster model", Page 168

##### Plaster model, internal plaster base profile (optional)

|                     |                                 |
|---------------------|---------------------------------|
| Material            | Plastic, hollow chamber profile |
| Surface             | Plastic                         |
| Material colour     | White                           |
| Box sizes           | 175, 200, 240                   |
| Box model           | Closed on 4 sides               |
| Unwinding direction | Right-rolling blind             |

#### + Plaster base profile

##### Plaster base profile, inside

- 20 mm

+ see "Plaster model", Page 168

### Window connection

#### Clip fixing, plastic

|                 |         |
|-----------------|---------|
| Material        | Plastic |
| Material colour | White   |

Comprised of base profile and window adapter profile made of plastic

+ see "Clip fixing, plastic", Page 169

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Window connection, optional

### Clip fixing, steel

|          |             |
|----------|-------------|
| Material | Steel       |
| Surface  | Zinc-coated |

Comprised of plastic base profile, white, and window adapter profile made of steel

+ see "Clip fixing, steel", Page 170

### Shaft

#### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

### Roller shutter curtain

- A 36
- A 44
- A 53
- K 36
- K 52

+ see "Roller shutter curtain", Page 274

### Bottom rail

- Flat end rail

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

### Guide variants

- Rail guidance

### Guide rail

- Guide rail 60-51, plastic (white), without offset
- Guide rail 35-51, plastic (white), 25 mm offset

Guide rail, optional:

- Guide rail 60-47, aluminium, without offset
- Guide rail 40-47, aluminium, 20 mm offset

+ see "Guide rails", Page 282

### Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

Basic motor, optional:

- WAREMA SecuKit, motor with additional belt operation
- Motor with additional collapsible crank ZHK
- Motor with battery module

## Radio motor, optional

- WMS Radio motor type WMS-RP inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RP incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with internal gear
- Vertical drive outlet
- Horizontal drive outlet

### Gear

- Crank type 1, crank
- Crank type 2, bevel gear

### Belt

- Belt, 14 mm
- Vertical drive outlet
- Horizontal drive outlet

Belt, optional:

- Belt, 23 mm (only in connection with box extension; note limited order height, see Chapter "Drives")
- Step-up gear for belt

+ see "Drive variants", Page 329

## Colours

- White
- Colours for shutter profiles

Colours, optional:

- Colours for decor films
- WAREMA Colour World

+ see "Colours", Page 12

## Insect screen

Insect screen, optional:

- Integrated insect screen roller blind
- Integrated insect screen swivel door

+ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen
- WAREMA SecuKit
- Motor with additional collapsible crank ZHK

+ see "Supplementary accessories", Page 235

## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum box width:** 3000 mm, in laminated model 2000 mm
- **Maximum number of single roller shutter curtains within a group unit:** 3

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 3000 mm                           | 10,5 m <sup>2</sup>              |
| A 44                                                   |                     | 3000 mm             | 3100 mm              | 9,3 m <sup>2</sup> | 3000 mm                           | 9,3 m <sup>2</sup>               |
| A 53                                                   |                     | 3000 mm             | 2500 mm              | 7,5 m <sup>2</sup> | 3000 mm                           | 7,5 m <sup>2</sup>               |
| K 36                                                   |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 3000 mm                           | 9 m <sup>2</sup>                 |
| K 52                                                   |                     | 2500 mm             | 2700 mm              | 5 m <sup>2</sup>   | 3000 mm                           | 8,1 m <sup>2</sup>               |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 685 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 700 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt                                           | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 750 mm              | 2000 mm             | 2700 mm              | 5 m <sup>2</sup>   |                                   |                                  |
| Insect screen roller blind without soft-raise function | 580 mm              | 2000 mm             | 2700 mm              | 5 m <sup>2</sup>   |                                   |                                  |

## Maximum order area per operating class

| Configuration variants                         | Operating classes   |                    |                    |
|------------------------------------------------|---------------------|--------------------|--------------------|
|                                                | Design-related      | Operating class 1  | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                     |                    |                    |
| A 36 + Motor                                   | 10,5 m <sup>2</sup> |                    |                    |
| A 44 + Motor                                   | 9,3 m <sup>2</sup>  |                    |                    |
| A 53 + Motor                                   | 7,5 m <sup>2</sup>  |                    |                    |
| K 36 + Motor                                   | 9 m <sup>2</sup>    |                    |                    |
| K 52 + Motor                                   | 8,1 m <sup>2</sup>  |                    |                    |
| A 36 + Crank type 1                            | 5 m <sup>2</sup>    | 5 m <sup>2</sup>   | 3 m <sup>2</sup>   |
| A 44 + Crank type 1                            | 5 m <sup>2</sup>    | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| A 53 + Crank type 1                            | 4 m <sup>2</sup>    | 4 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 36 + Crank type 1                            | 5 m <sup>2</sup>    | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 52 + Crank type 1                            | 3,5 m <sup>2</sup>  | 3,5 m <sup>2</sup> | 2 m <sup>2</sup>   |
| A 36 + Crank type 2                            | 8 m <sup>2</sup>    | 8 m <sup>2</sup>   | 5,5 m <sup>2</sup> |
| A 44 + Crank type 2                            | 8 m <sup>2</sup>    | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| A 53 + Crank type 2                            | 7 m <sup>2</sup>    | 7 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| K 36 + Crank type 2                            | 8 m <sup>2</sup>    | 8 m <sup>2</sup>   | 4,5 m <sup>2</sup> |
| K 52 + Crank type 2                            | 6,5 m <sup>2</sup>  | 6,0 m <sup>2</sup> | 3,5 m <sup>2</sup> |
| A 36 + Internal belt / Vertical drive outlet   | 4 m <sup>2</sup>    | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 44 + Internal belt / Vertical drive outlet   | 4 m <sup>2</sup>    | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| A 53 + Internal belt / Vertical drive outlet   | 3 m <sup>2</sup>    | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 36 + Internal belt / Vertical drive outlet   | 4 m <sup>2</sup>    | 2 m <sup>2</sup>   | 1 m <sup>2</sup>   |
| K 52 + Internal belt / Vertical drive outlet   | 2,5 m <sup>2</sup>  | 1,5 m <sup>2</sup> | 1,0 m <sup>2</sup> |
| A 36 + Internal belt / Horizontal drive outlet | 3,0 m <sup>2</sup>  | 2,0 m <sup>2</sup> | 1,0 m <sup>2</sup> |

| Configuration variants                                 | Operating classes  |                    |                    |
|--------------------------------------------------------|--------------------|--------------------|--------------------|
|                                                        | Design-related     | Operating class 1  | Operating class 2  |
| A 44 + Internal belt / Horizontal drive outlet         | 3,0 m <sup>2</sup> | 2,0 m <sup>2</sup> | 1,0 m <sup>2</sup> |
| A 53 + Internal belt / Horizontal drive outlet         | 3,0 m <sup>2</sup> | 2,0 m <sup>2</sup> | 1,0 m <sup>2</sup> |
| K 36 + Internal belt / Horizontal drive outlet         | 3,0 m <sup>2</sup> | 2,0 m <sup>2</sup> | 1,0 m <sup>2</sup> |
| K 52 + Internal belt / Horizontal drive outlet         | 2,0 m <sup>2</sup> | 1,5 m <sup>2</sup> | 0,5 m <sup>2</sup> |
| A 36 + Step-up gear for belt / Vertical drive outlet   | 8 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| A 44 + Step-up gear for belt / Vertical drive outlet   | 7 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| A 53 + Step-up gear for belt / Vertical drive outlet   | 6 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| K 36 + Step-up gear for belt / Vertical drive outlet   | 7 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| K 52 + Step-up gear for belt / Vertical drive outlet   | 4,5 m <sup>2</sup> | 3,0 m <sup>2</sup> | 1,5 m <sup>2</sup> |
| A 36 + Step-up gear for belt / Horizontal drive outlet | 5 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| A 44 + Step-up gear for belt / Horizontal drive outlet | 5 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| A 53 + Step-up gear for belt / Horizontal drive outlet | 5 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| K 36 + Step-up gear for belt / Horizontal drive outlet | 5 m <sup>2</sup>   | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| K 52 + Step-up gear for belt / Horizontal drive outlet | 3,5 m <sup>2</sup> | 3,0 m <sup>2</sup> | 1,5 m <sup>2</sup> |

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

### Maximum order height per box size

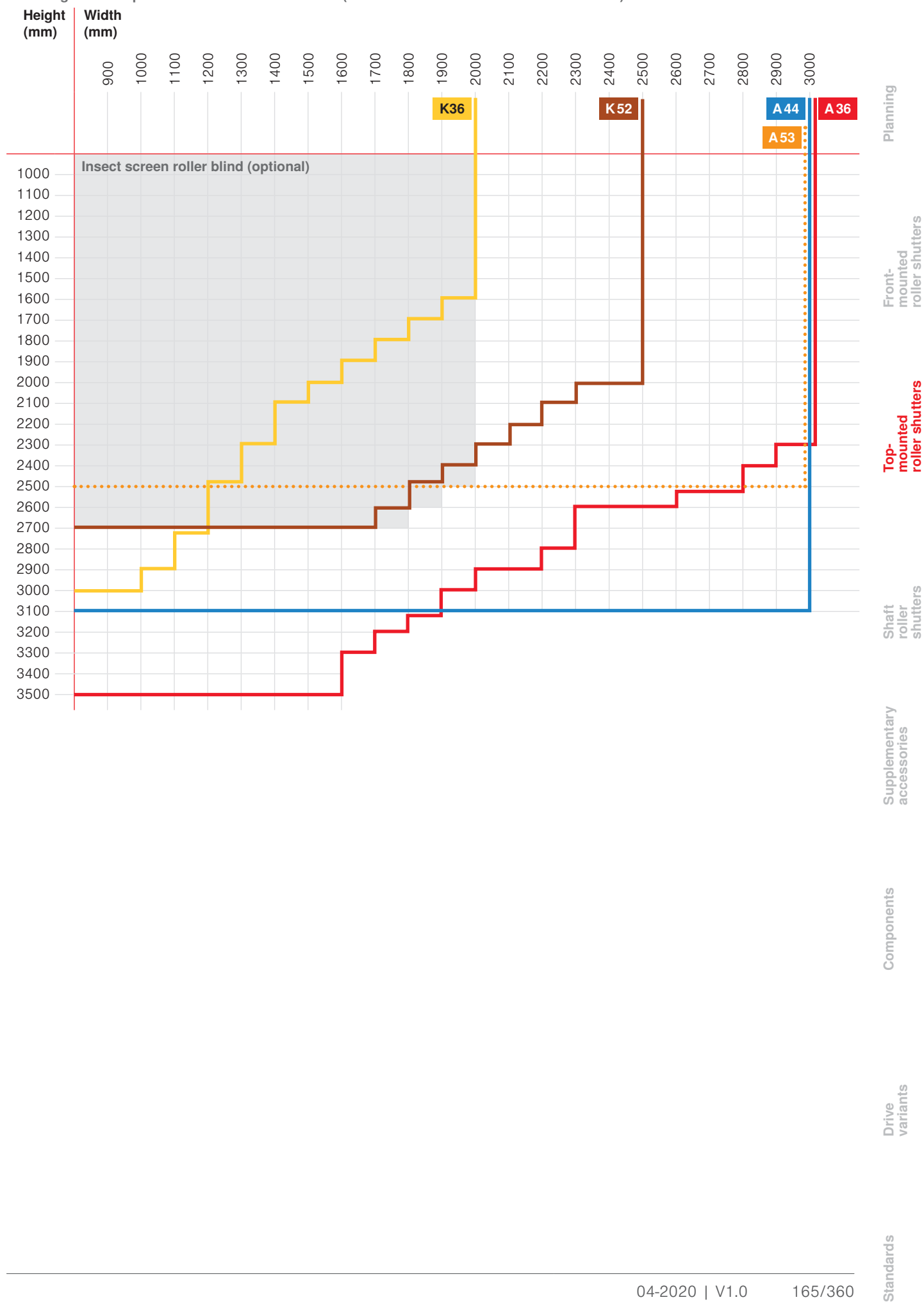
| Configuration variants        | Box sizes |         |         |
|-------------------------------|-----------|---------|---------|
|                               | 175       | 200     | 240     |
| <b>Roller shutter curtain</b> |           |         |         |
| A 36                          | 1800 mm   | 2600 mm | 3500 mm |
| A 44                          | 1000 mm   | 1800 mm | 3100 mm |
| A 53                          | 800 mm    | 1500 mm | 2500 mm |
| K 36                          | 1800 mm   | 2700 mm | 3000 mm |
| K 52                          | 1000 mm   | 1700 mm | 2700 mm |

### Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2850 mm | 2775 mm | 2605 mm | 2275 mm | 1770 mm | 1105 mm |
| A 44                          | 3000 mm               | 3000 mm | 3000 mm | 3000 mm | 2625 mm | 2055 mm | 1285 mm |
| A 53                          | 3000 mm               | 3000 mm | 3000 mm | 3000 mm | 3000 mm | 2490 mm | 1790 mm |
| K 36                          | 2000 mm               | 1800 mm | 1725 mm | 1520 mm | 1115 mm | 515 mm  |         |
| K 52                          | 2500 mm               | 2355 mm | 2285 mm | 2140 mm | 1855 mm | 1425 mm | 850 mm  |

Wind resistance class 1 generally applies to installed insect screen roller blinds.

Area diagram for top mounted roller shutter AU-RO (maximum dimensions for individual areas)



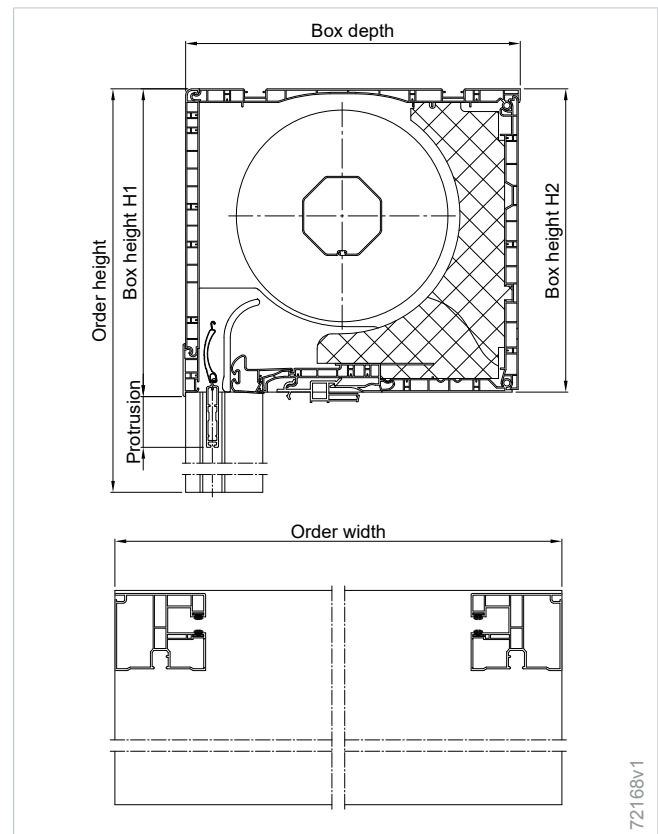
## Dimension determination

| Reference dimension | Dimension determination                              |
|---------------------|------------------------------------------------------|
| Order width         | = window frame width = box width                     |
| Order height        | Bottom edge of the guide rail to top edge of the box |
| Box height          | see box dimensions                                   |
| Box depth           | see box dimensions                                   |

- Operation side seen from inside
- Available information on window profile: manufacturer, type, window frame thickness
- Specify box sizes that deviate from the standard.
- Note standard offsets for guide rails 35-51, 40-47 and 40-48. Larger offsets are possible.
- Inspection cover: the inspection cover may not be laterally plastered over! Maximum plastering over on the plaster piece 15 mm.

**Minimum distance between the box top edge and lintel: 10 mm**

### Order dimension determination AU-RO



72168v1

## Box types

### Basic model, plastic

- With insulating wedges made of expanded polystyrene
- Fixing downwards by screwing together or clipping onto the window frame depending on window connection.

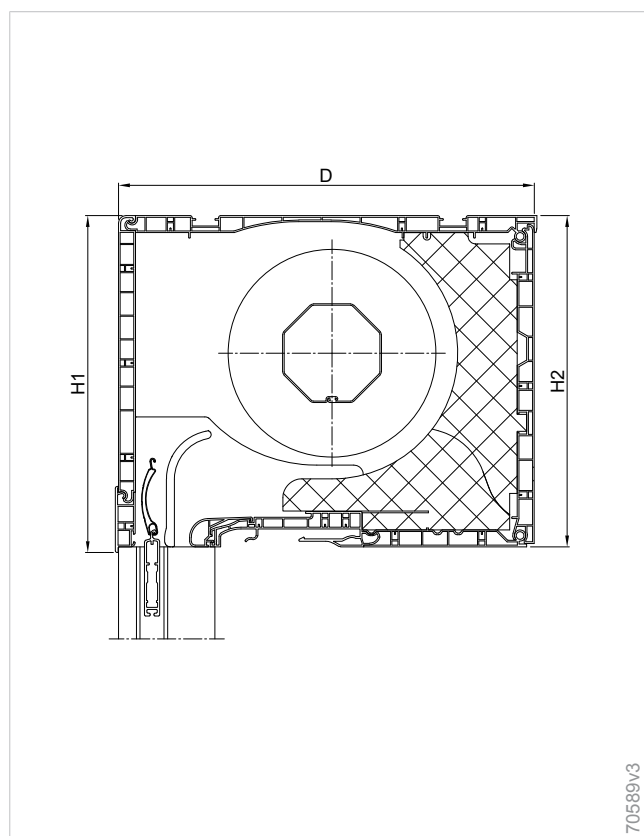
### Box dimensions

| Box sizes | H1     | H2     | D      |
|-----------|--------|--------|--------|
| 175       | 178 mm | 175 mm | 221 mm |
| 200       | 204 mm | 201 mm | 221 mm |
| 240       | 243 mm | 240 mm | 256 mm |

Group units:

- An additional wall anchor for the area of the middle rail is included in the scope of delivery.

### AU-RO basic model



70589v3

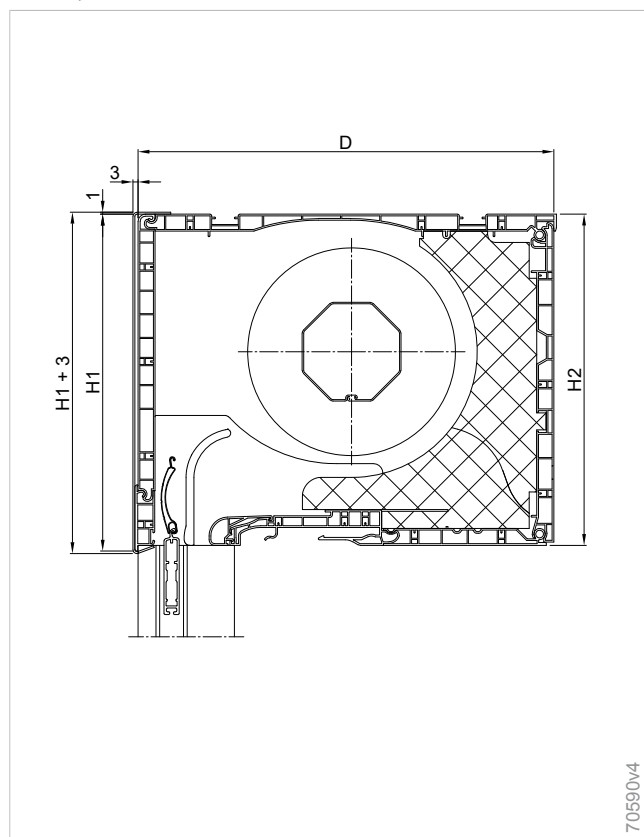
### Model with aluminium front cover

- Aluminium front cover in powder-coated model
- The box depth and box height increase respectively by 3 mm due to the front cover.

### Box dimensions

| Box size | H1     | H2     | D      |
|----------|--------|--------|--------|
| 175      | 178 mm | 175 mm | 221 mm |
| 200      | 204 mm | 201 mm | 221 mm |
| 240      | 243 mm | 240 mm | 256 mm |

### AU-RO, model with front cover



70590v4

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



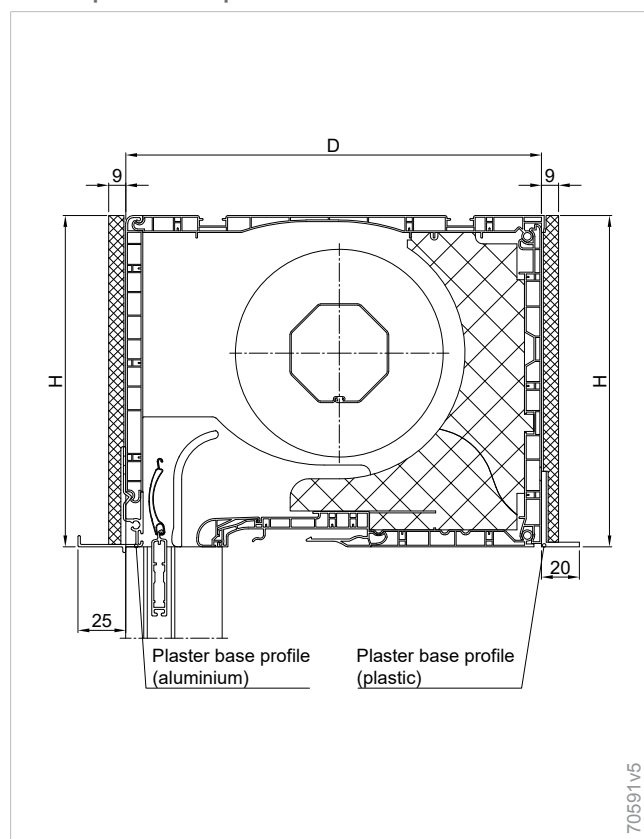
## Plaster model

- Can alternatively be embedded in plaster outside and/or inside
- Plaster base profile, outside:
  - 25 mm standard projection, optionally 50 mm
  - Aluminium plaster base profile
    - Plain as standard, optionally powder-coated
    - Optionally available as shortened version
- Plaster base profile, inside:
  - Projection 20 mm (plastic profile)
- Plaster base profile generally includes 8 mm plaster base plate

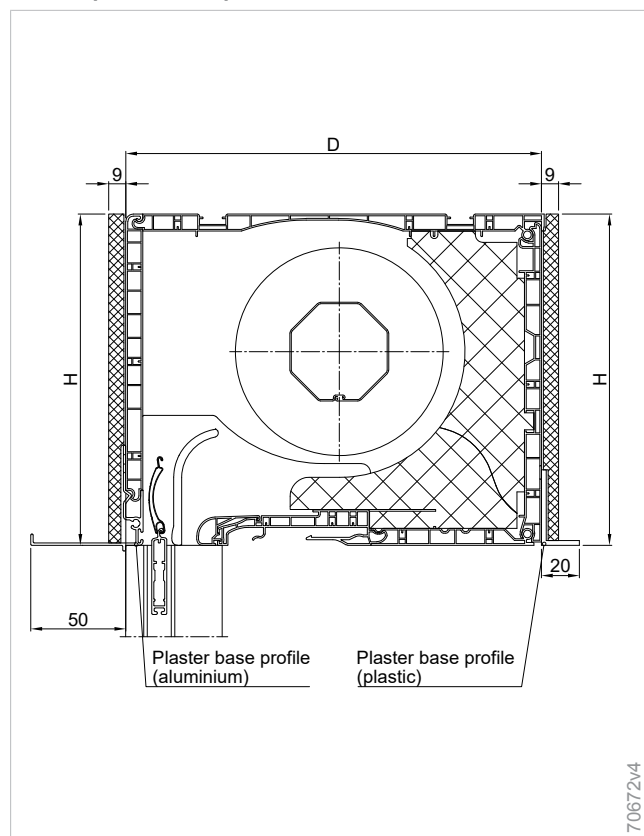
### Box dimensions

| Box size | H      | D      |
|----------|--------|--------|
| 175      | 175 mm | 221 mm |
| 200      | 201 mm | 221 mm |
| 240      | 240 mm | 256 mm |

AU-RO plaster, external plaster base with 25 mm projection, internal plaster base profile 20 mm



AU-RO plaster, external plaster base with 50 mm projection, internal plaster base profile 20 mm



## Window connection via clip fixing

### Clip fixing, plastic

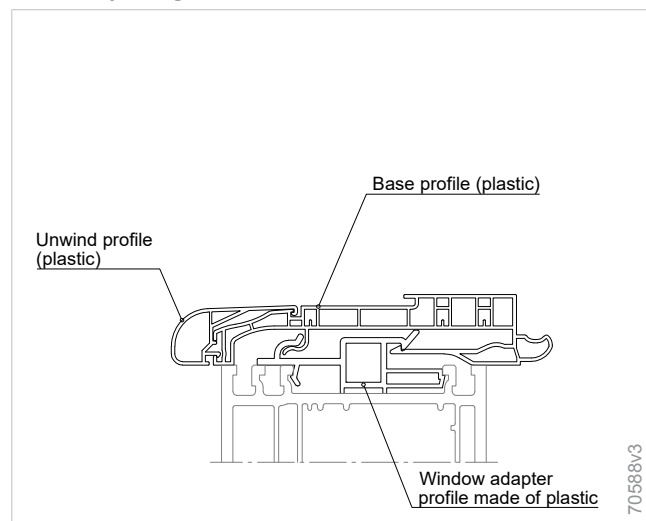
**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- The plastic window adapter profile, white, is clipped into the respective plastic window or screwed in via a universal window adapter profile for all other windows.
- Plastic base profile: Premounted between the side covers of the box
- Inspection cover snaps into base profile
- Sliding profile, plastic, white: Connected to the base profile ex works (sliding profile also available in black on request)

#### Can be used for the following window frame thicknesses:

- Inspection at bottom: 70–92 mm
- Inspection at rear: 70 mm without maximum limitation

### Plastic clip fixing for window connection



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Clip fixing, steel

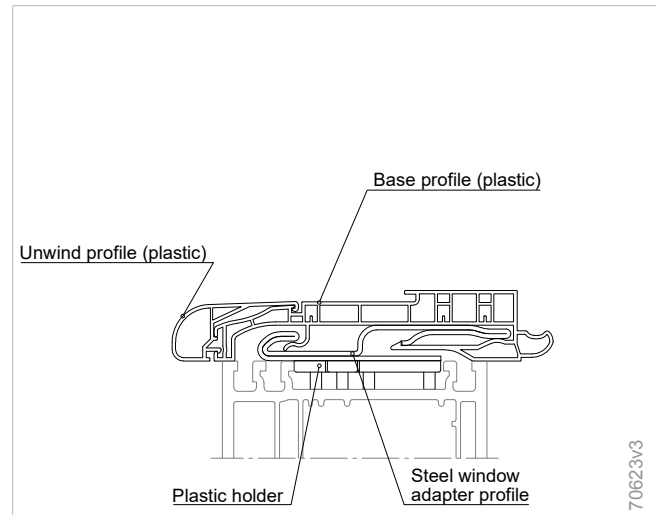
**Sealing of connecting joint:** The connecting joint between the window frame and the top-mounted box must be sealed in accordance with the on-site conditions. The use of structural consoles is possible to improve the structural strength.

- Recommended for order widths of 1600 mm or greater for increased window rigidity
- Short and long models available
- The steel window adapter profile is screwed directly onto the window frame from above, aligned using plastic holder, available for all common window profiles (the window adapter profile is bolted directly onto the window frame for smooth windows or windows without allocation).
- Area moment of inertia, steel window adapter profile:
  - Long profile  $I_y = 8.3 \text{ cm}^4$
  - Short profile  $I_y = 2.4 \text{ cm}^4$
- Plastic base profile, white: Premounted between the side covers of the box
- Sliding profile, plastic, white: Connected to the base profile ex works (sliding profile also available in black on request)
- Inspection cover snaps into base profile

### Can be used for the following window frame thicknesses:

- Inspection from below: 70-92 mm: With a window frame thickness of 92 mm or greater, we recommend that the short window adapter profile always be used for ease of installation.
- Inspection at rear, long profile: 70-92 mm
- Inspection from rear, short profile: min. 70 mm, without maximum limitation

## Steel clip fixing for window connection

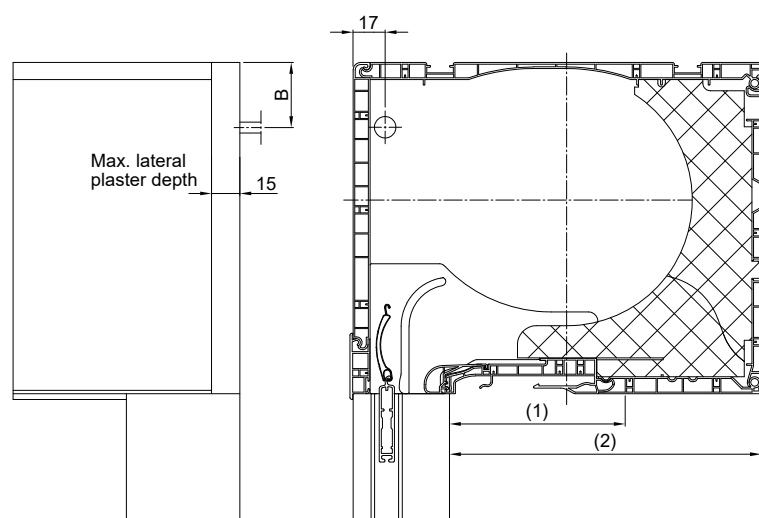


## Additional product information

### Drive details, motor

- **Position of cable exit:** fixed, not adjustable
- **End stopper:** no end stopper in combination with aluminium guide rails; end stopper for plastic guide rails

#### Motor line outlet



| Box size | (1) Max. window frame width; inspection from underneath | (2) Max. window frame width; inspection at the back | B     |
|----------|---------------------------------------------------------|-----------------------------------------------------|-------|
| 175      | 92 mm                                                   | 165 mm                                              | 35 mm |
| 200      | 92 mm                                                   | 165 mm                                              | 25 mm |
| 240      | 92 mm                                                   | 200 mm                                              | 28 mm |

70598v2

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

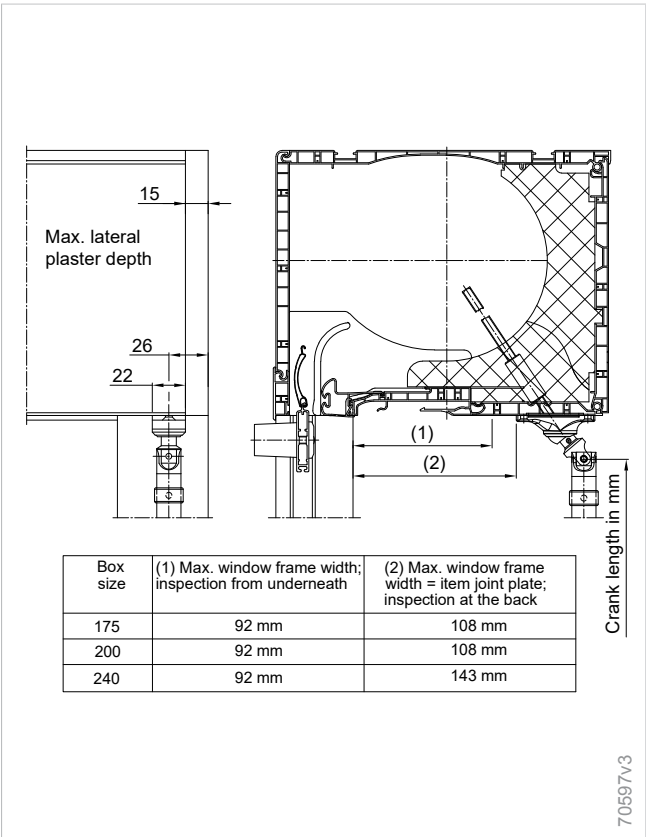
Drive variants

Standards

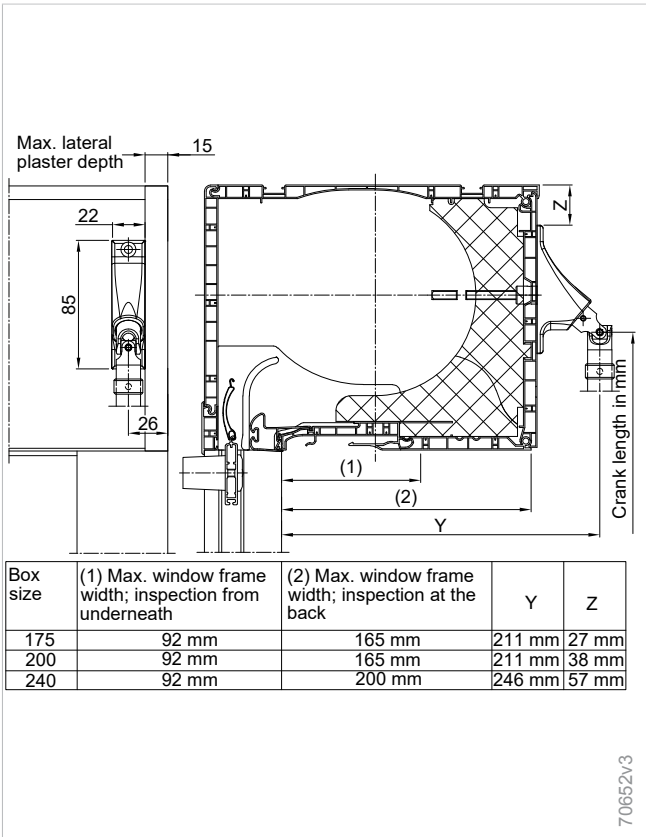
Drive details, crank

**Drive outlet:** gear outlet, vertical 90° (standard) or optionally horizontal 0°

Crank, vertical drive outlet 90°



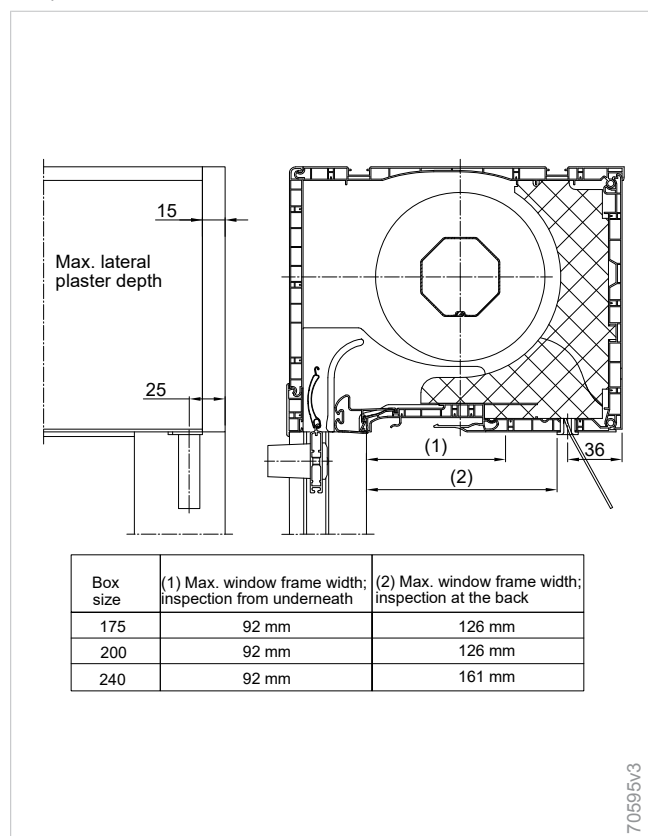
Crank, horizontal drive outlet 0°



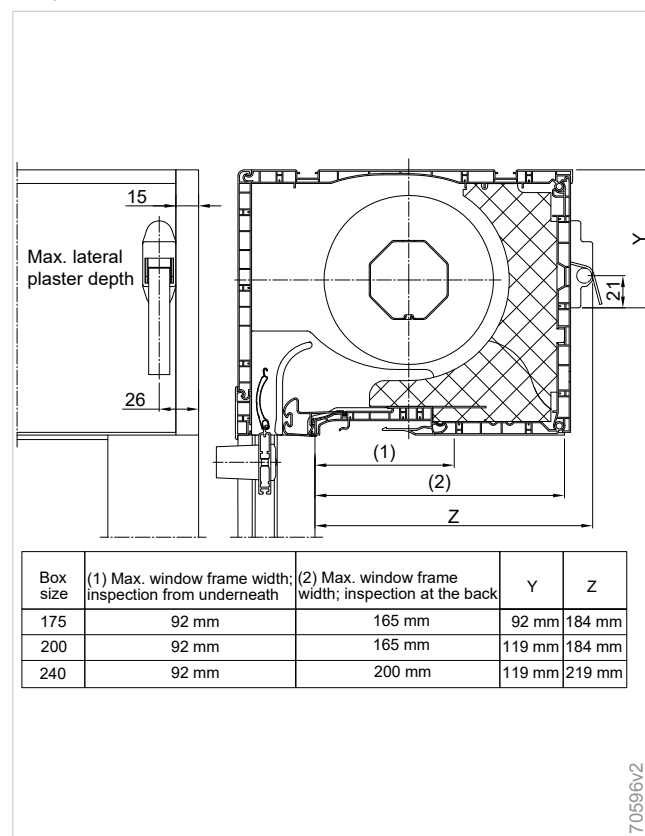
## Belt drive details

- AU-RO in standard design only available with 14 mm belt
- 23 mm belt only possible in connection with box extension, only horizontal belt outlet here
- Details apply to step-up gear as well
- **Belt outlet:** Vertical 90° belt outlet (standard) or horizontal 0° (optional)

Belt, vertical drive outlet 90°



Belt, horizontal drive outlet 0°



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Group units

Multi-part roller shutters with continuous boxes and individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** always seen from inside, from left to right
- **Beginning and end position:** please indicate on order form
  - 2-part units: beginning position – end position
  - 3-part units: beginning position – middle position – end position

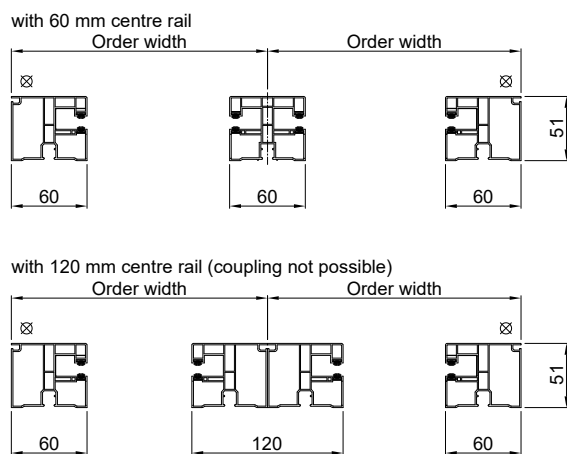
- Maximum continuous box width: 3000 mm.
- Maximum number of individual roller shutter curtains within a continuous box: 3
- Centre situations:
  - The load transfer of the box to the lintel must be provided by means of wall anchors for each centre situation.
  - One wall anchor per centre situation is included as standard for ceiling installation

Coupling of roller shutter curtains:

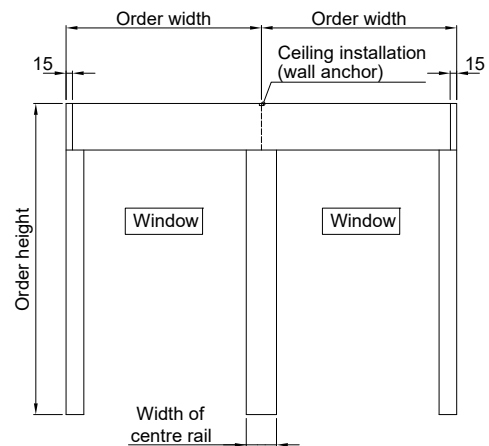
- Max. 2 roller shutter curtains can be coupled, taking the max. drive areas into consideration
- The drive units must, however, be placed on the outside (centre drive is not possible)
- Coupling is only possible in combination with a 60 mm middle rail

### Order data for group units (same height units)

Plastic guide rail (standard)

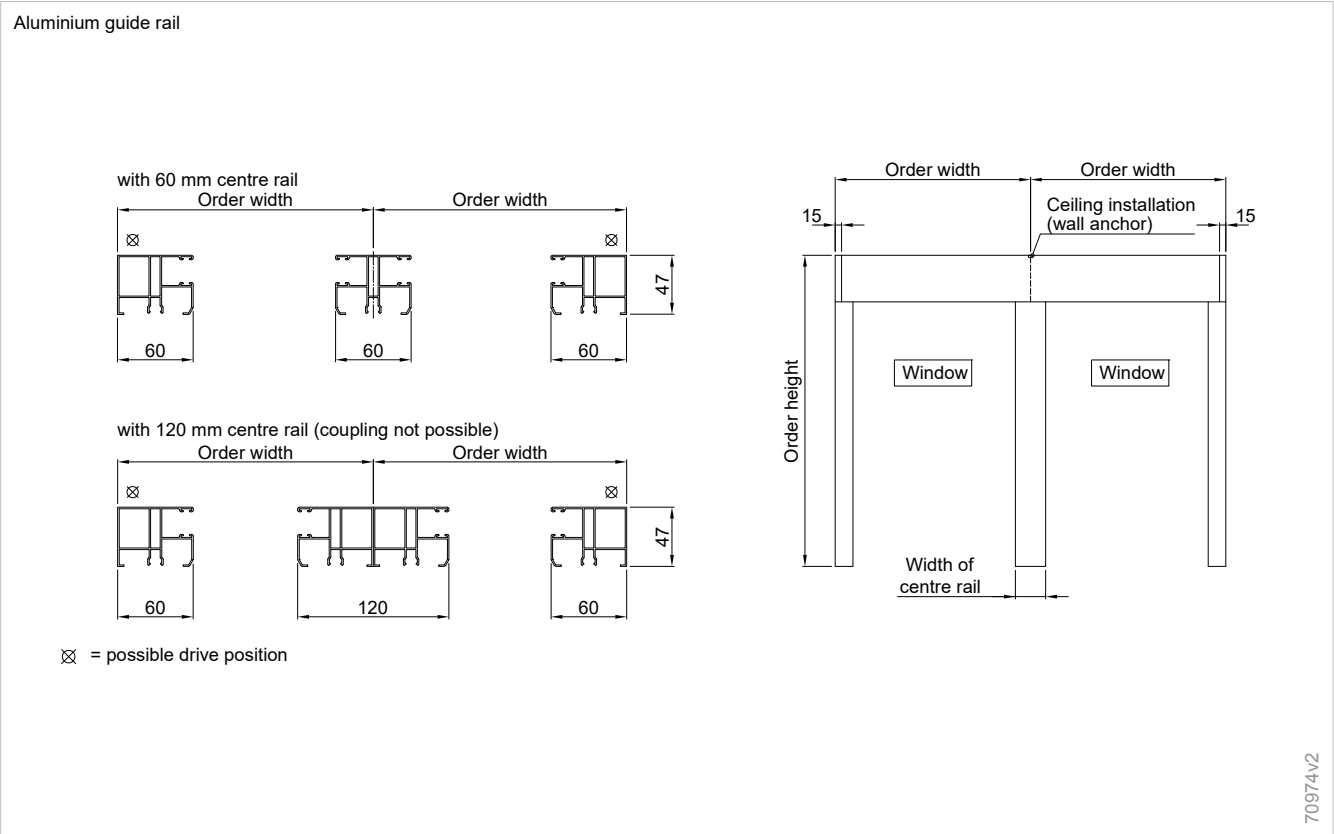


⊗ = possible drive position



70973v2

### Order data for group units (same height units)

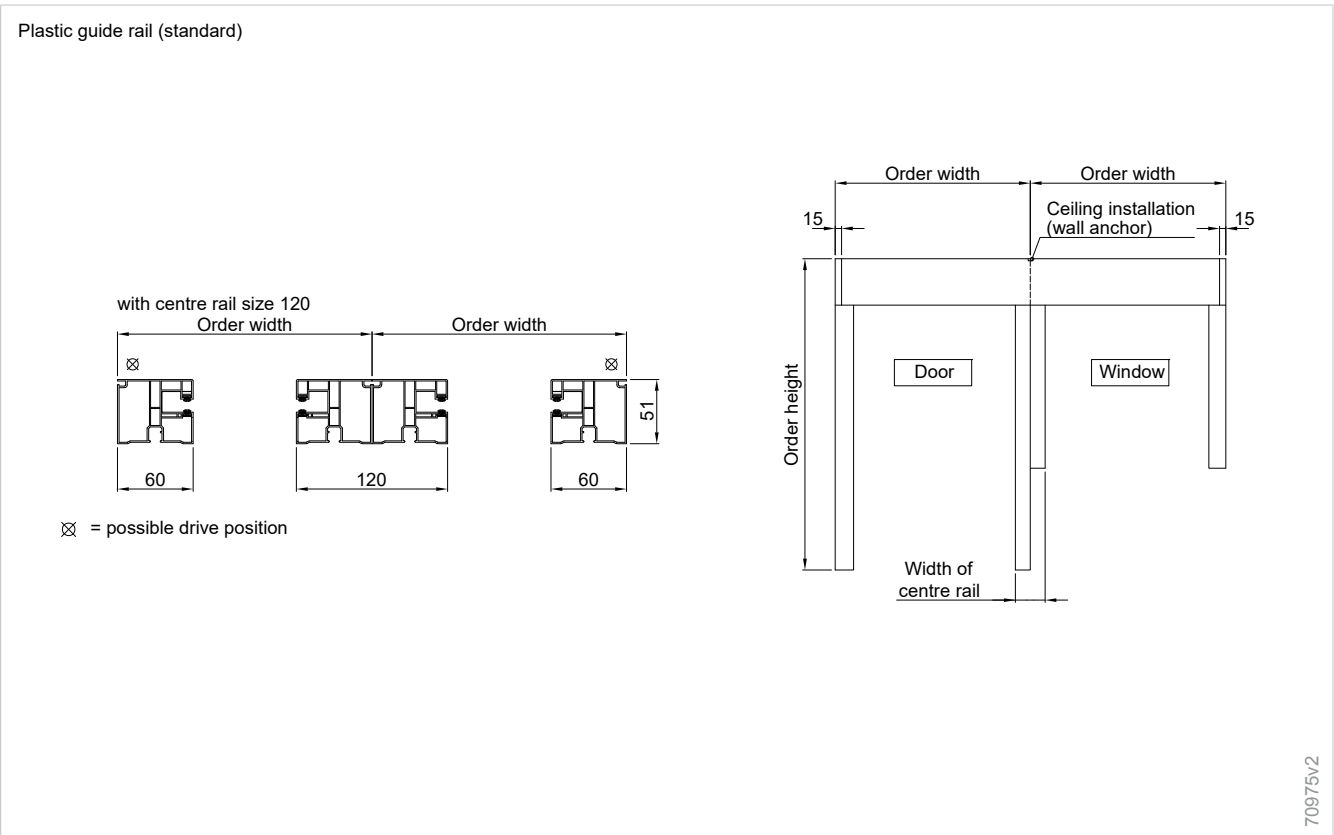


Planning

Front-mounted roller shutters

Top-mounted roller shutters

### Order data for group units (door/window combinations)



Shaft roller shutters

Supplementary accessories

Components

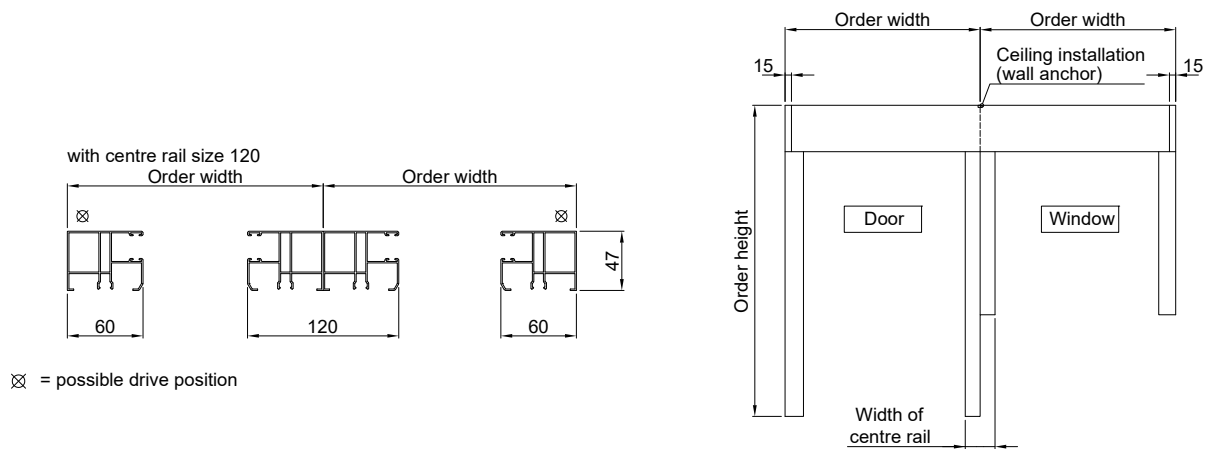
Drive variants

Standards



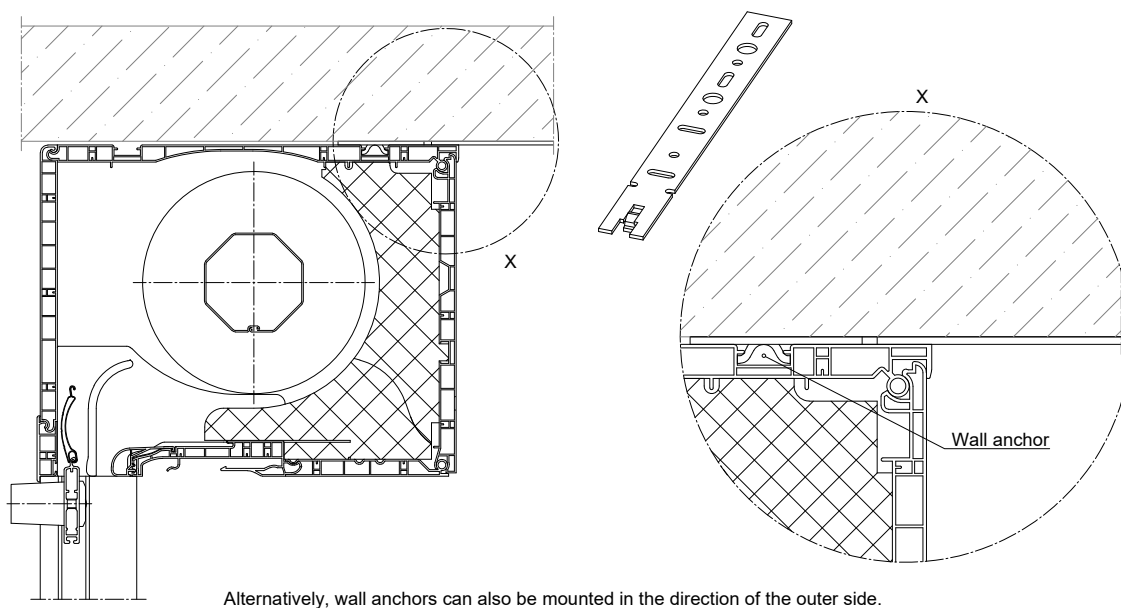
## Order data for group units (door/window combinations)

### Aluminium guide rail



70976v1

### Lintel fastening for group units



70592v1

Group units require fixing above a wall anchor at the central support positions (load transfer box to lintel); this is included as standard in the scope of delivery.

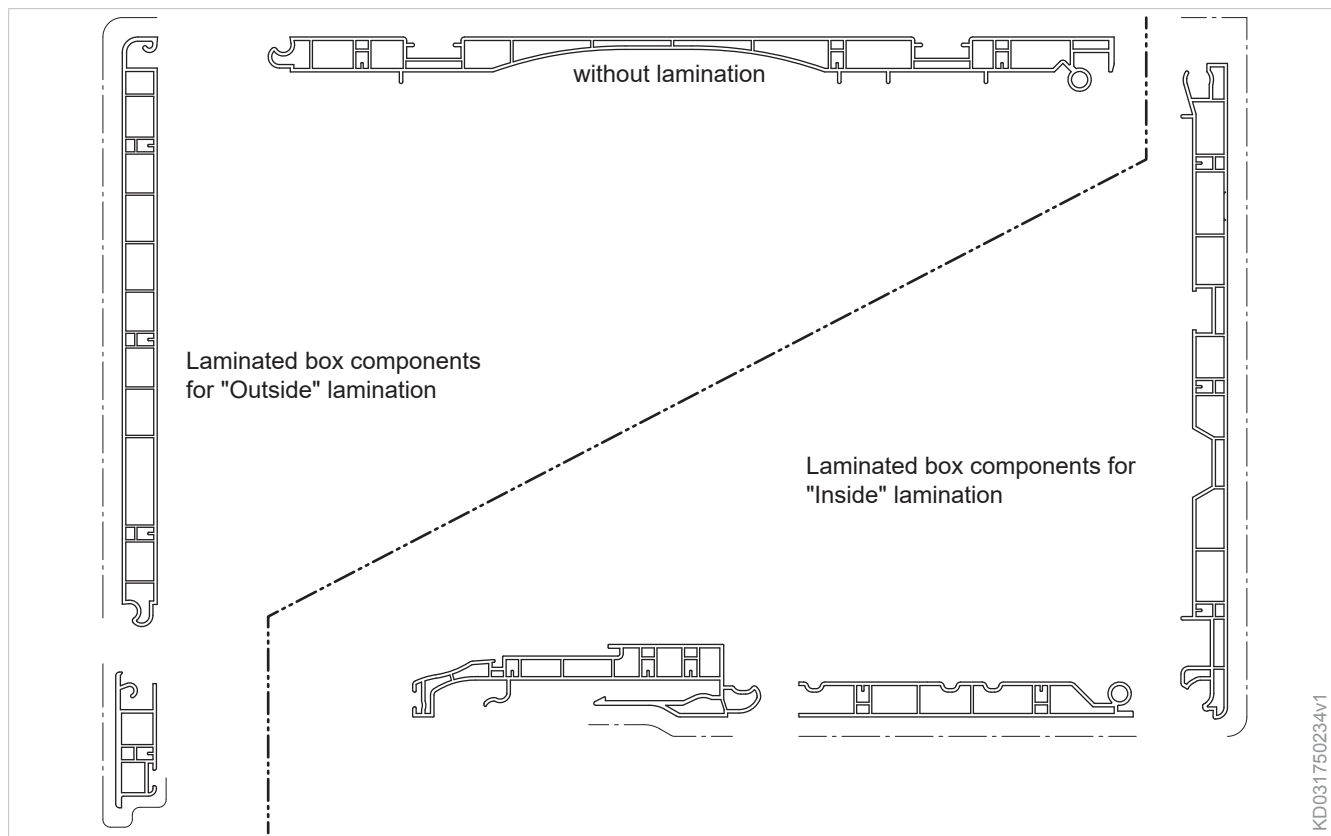
Alternatively, wall anchors can also be mounted in the direction of the outer side.

## Laminated boxes

To optimally match the appearance of the sun shading system to the on-site laminated plastic windows, visible plastic parts of the sun shading system can optionally be supplied in a laminated design. 8 standard decor films and many special decor films are available to choose from.

- Laminated boxes available in full or partial lamination
  - Partial lamination means lamination on the outside
  - Full lamination means lamination on the inside and outside
- Boxes with a plaster base profile on the outside or an aluminium front cover are only possible with full lamination
- Maximum width of laminated boxes: 2000 mm

Box: laminated areas, fully/partially laminated

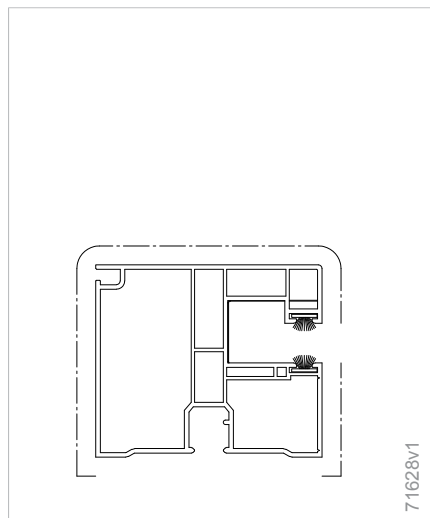


+ see "Colours for decor films", Page 21

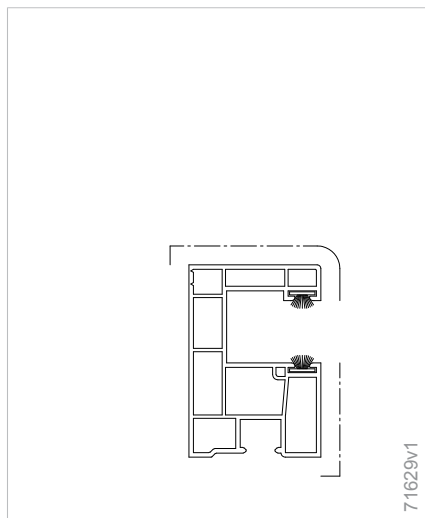
## Laminated guide rails

To optimally match the appearance of the sun shading system to the on-site laminated plastic windows, visible plastic parts of the sun shading system can optionally be supplied in a laminated design. 8 standard decor films and many special decor films are available to choose from.

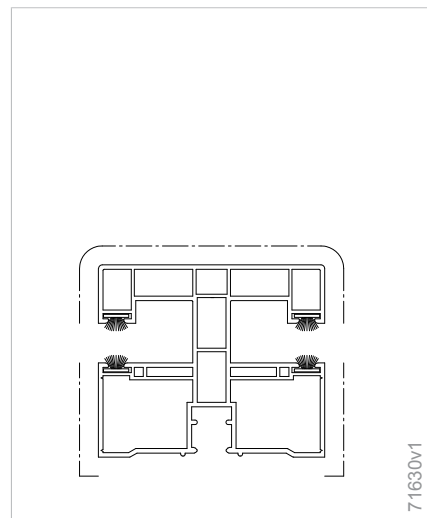
**Guide rail 60-51, laminated areas**



**Guide rail 35-51, laminated areas**



**Middle rail 60-51, laminated areas**



+ see "Colours for decor films", Page 21

## Integrated insect screen roller blind (optional)

### Construction limit values with integrated insect screen roller blind

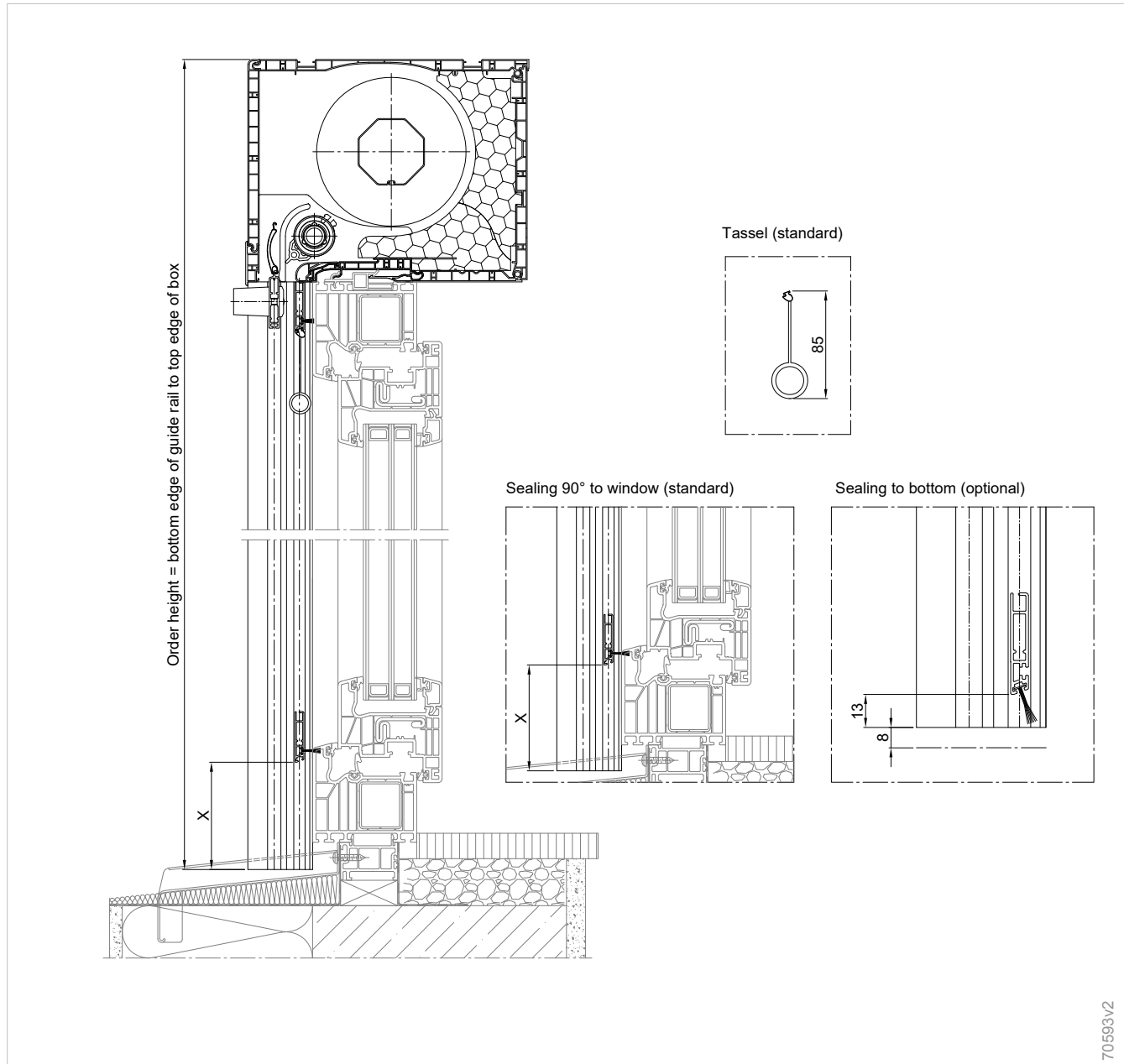
| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 750 mm        | 2000 mm       | -              | 2700 mm        | 5.0 m <sup>2</sup> |

#### Type-dependent limitations:

We supply insect screen guide rails C0 anodised as standard.

**Drawings for top-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.**

### AU-RO with integrated insect screen roller blind



+ see "Integrated insect screen", Page 246

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Structural console

**The planner or customer is responsible for determining the structural strength (wind load) on the basis of the window profile selected.**

If the required standard classes are not achieved either by the window frame or a window frame reinforcement, the structural strength can be improved by using structural consoles.

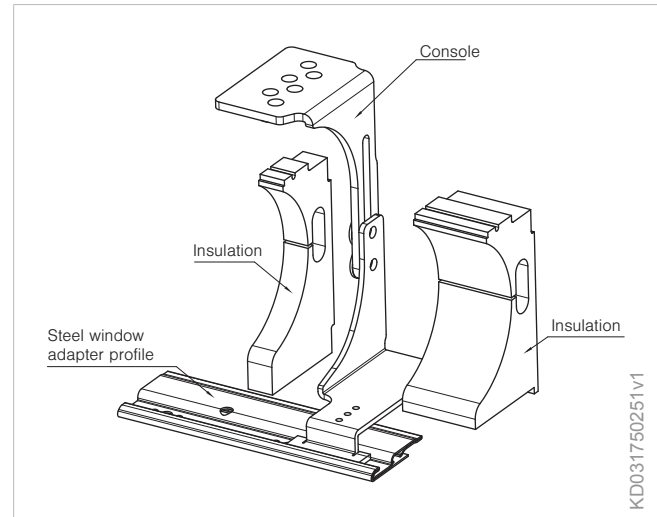
### **Load bearing capacity of the structural console: 1.0 kN**

The load-bearing capacity only applies under the following on-site conditions:

- Mounting substructure with sufficient load-bearing capacity
- Use of suitable fixing material
- Rests on the full surface of the console, pressure resistant lining

**Number of structural consoles:** Specify the required quantity when ordering. A structural strength tool is available to help determine this quantity.

Structural console individual components



**Possibilities for improving the structural strength:** The box can be optionally designed with a window adapter profile made from steel. If the required structural strength is still not achieved, additionally available structural consoles can be used in the structure to absorb the load.

**The requirements** for the use of a structural console are a steel window adapter profile as well as lower inspection access.

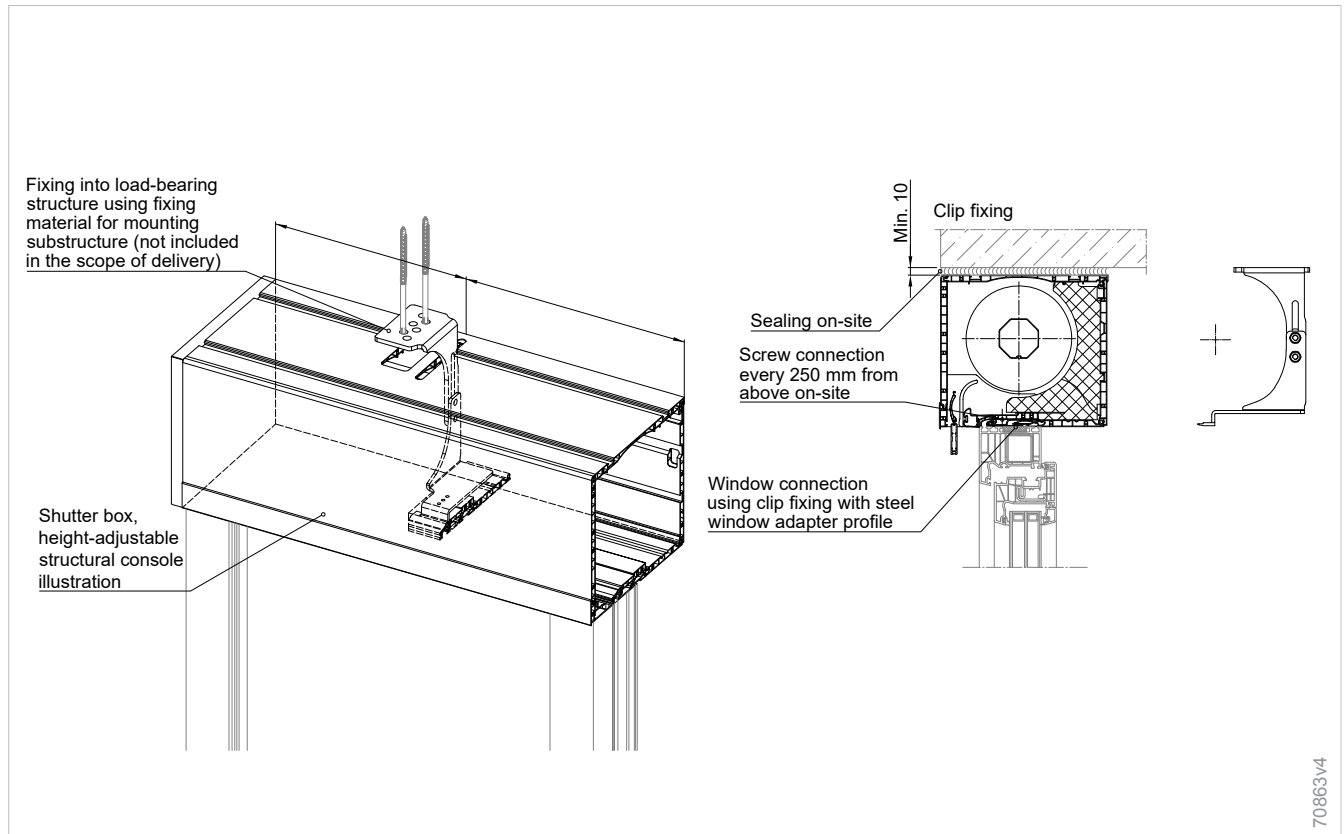
**Delivery condition:** Structural consoles for AU-RO are supplied as accessories for installation on site.

#### **Please note when installing:**

- The structural consoles must be fixed to the load-bearing structure/ lintel on-site.
- The fixing material (not included in the scope of delivery) must be adjusted to the mounting substructure.
- The one-piece insulating wedge must be fitted after the structural console has been installed and insulated on-site to compensate for building tolerances.
- The bottom part of the structural console is detachable when necessary.

**Sound insulation limitation:** A model with structural consoles cannot be combined with the sound insulation model "Sound insulation 2".

## AU-RO, model with structural console



Planning

Front-mounted roller shutters

Top-mounted roller shutters

## Test values for sound insulation

**The following limitations must be observed when using sound insulation packages:**

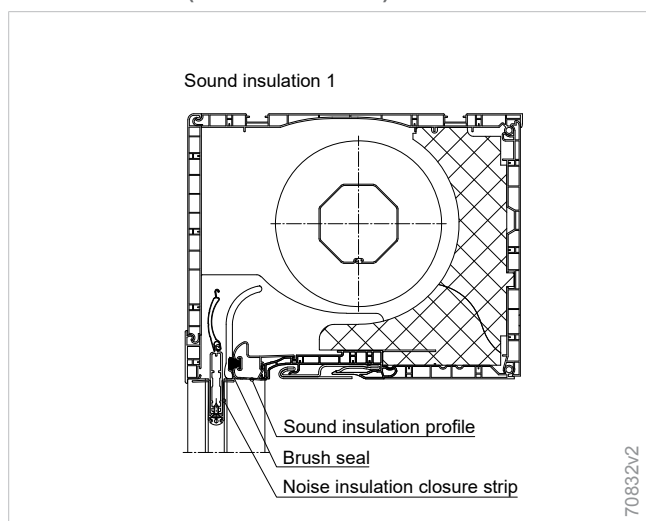
- Generally, insect screen roller blind not possible
- Sound insulation package 1 not possible with two-piece 90°-profile end rail
- Sound insulation package 2 not possible with milled fan or with structural consoles

For further questions, please contact the Applied Engineering Department.

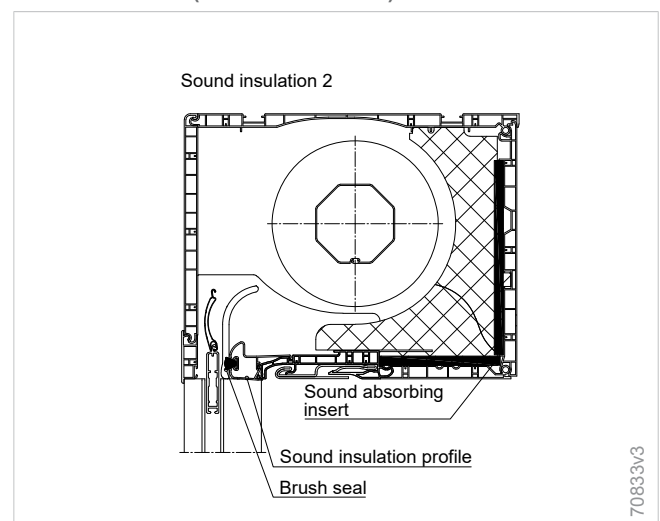
Shaft roller shutters

Supplementary accessories

### Sound insulation (sound insulation 1)



### Sound insulation (sound insulation 2)



Components

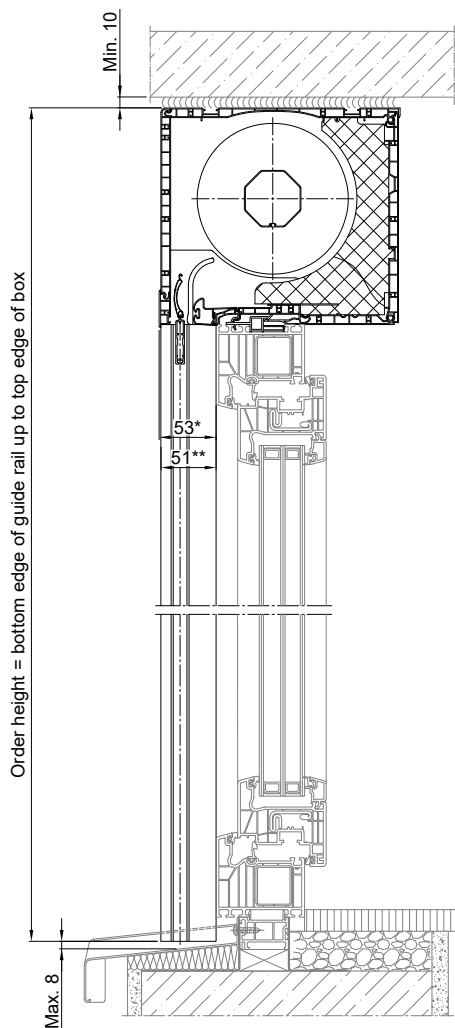
Drive variants

Standards

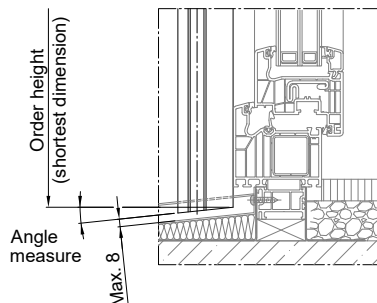
# Mounting examples

## AU-RO with plastic guide rails

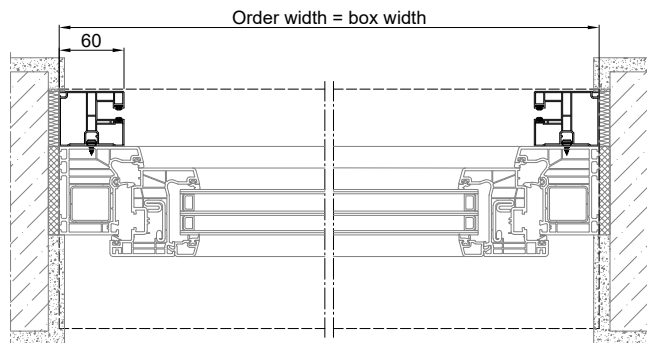
Plastic guide rail



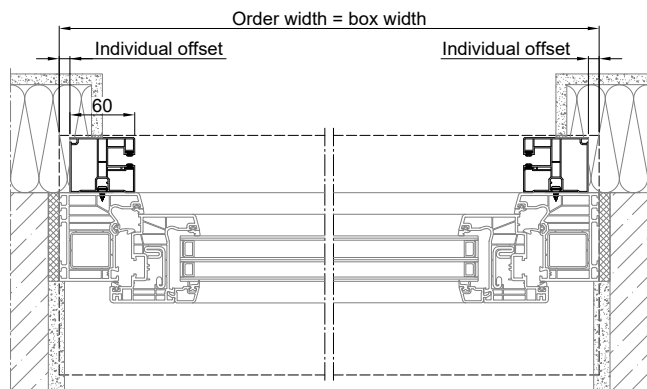
Guide rails with sloped cut (optional)



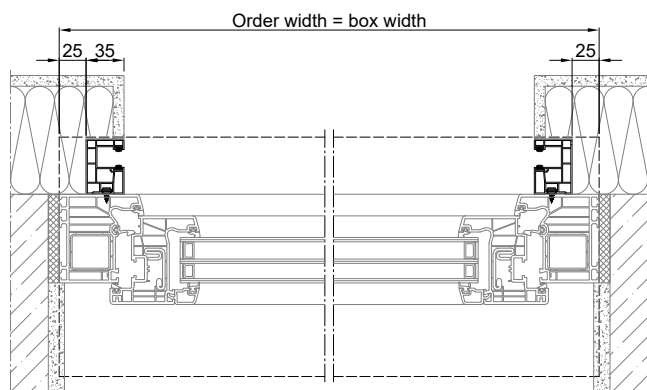
- \* Distance from outer edge of box to outer layer of window frame
- \*\* Distance from outer edge of guide rails to outer layer of window frame



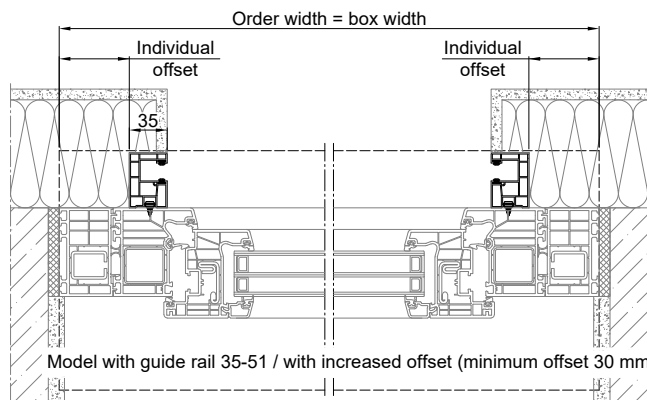
Model with guide rail 60-51 / standard situation



Model with guide rail 60-51 drawn-in (minimum offset 5 mm)



Model with guide rail 35-51 (standard offset 25 mm)



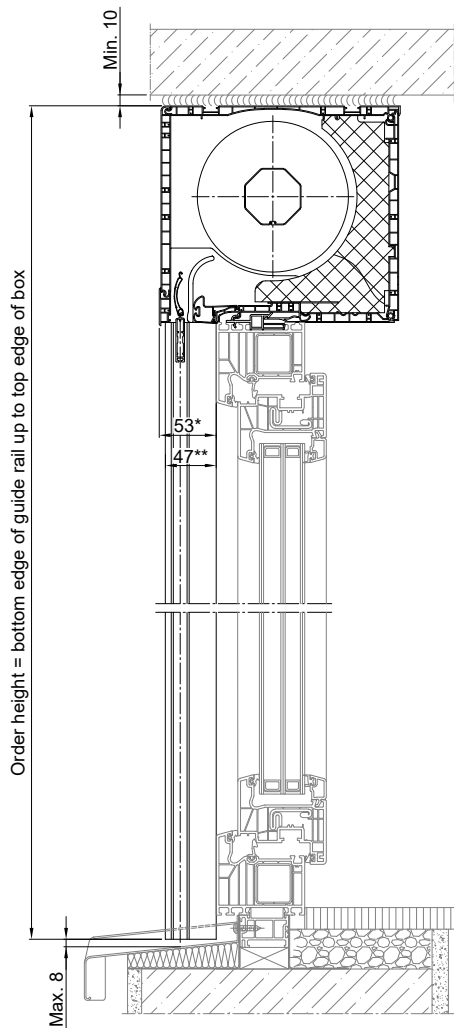
Model with guide rail 35-51 / with increased offset (minimum offset 30 mm)

The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

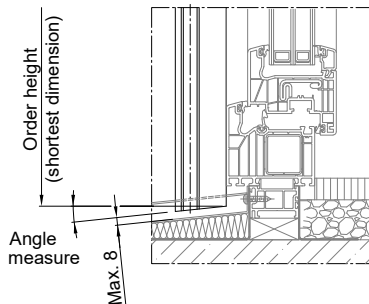
70647 v6

# AU-RO with aluminium guide rails

## Aluminium guide rail

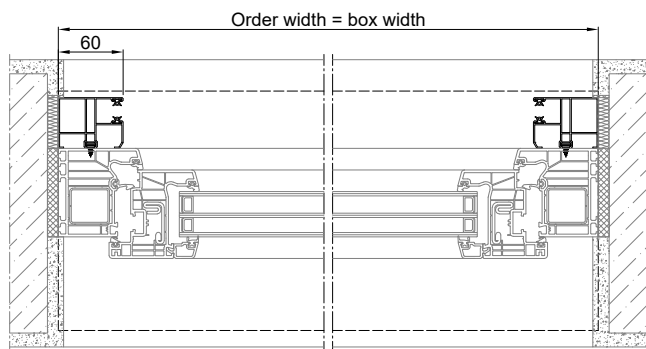


## Guide rails with sloped cut (optional)

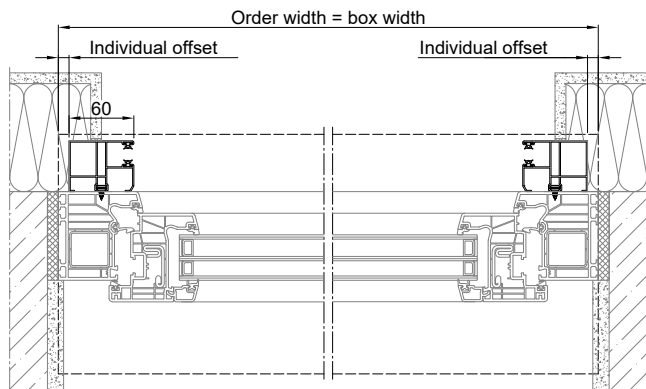


- \* Distance from outer edge of box to outer layer of window frame
- \*\* Distance from outer edge of guide rails to outer layer of window frame

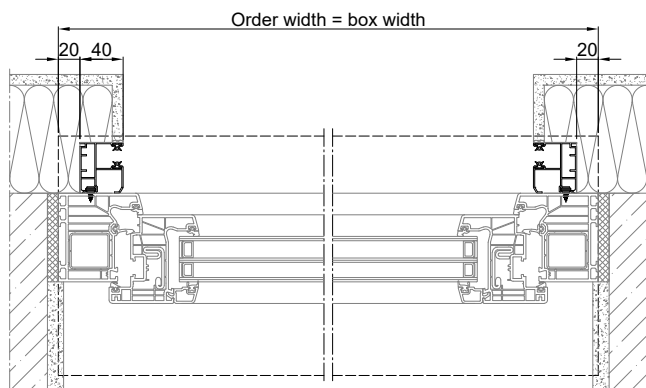
The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.



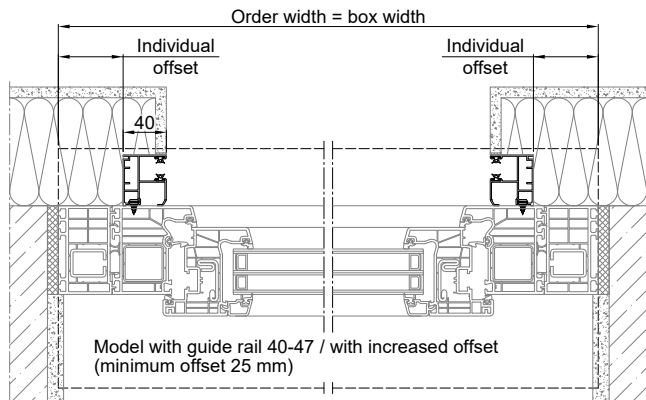
Model with guide rail 60-47 / standard situation



Model with guide rail 60-47 drawn-in (minimum offset 5 mm)



Model with guide rail 40-47 (standard offset 20 mm)



Model with guide rail 40-47 / with increased offset (minimum offset 25 mm)

70648v5

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Top-mounted roller shutters  
<https://docs.warema.com/1.1314.0>



Planning

Front-mounted  
roller shutters

Top-mounted  
roller shutters

Shaft  
roller  
shutters

Supplementary  
accessories

Components

Drive  
variants

Standards



# Top-mounted roller shutters

## Renovation roller shutters RE-RO

### Energy-efficient

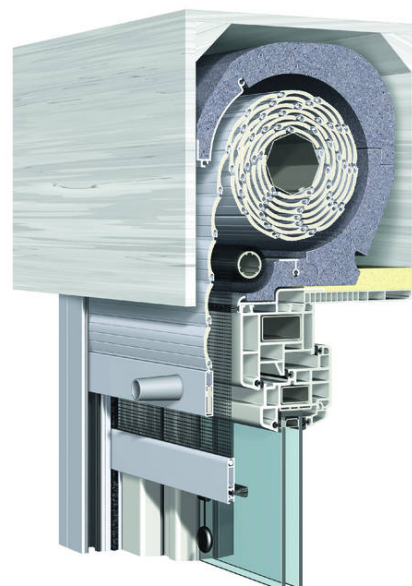
Energy-efficient solution for reusing existing lintel boxes. The requirements of the EnEV are fulfilled.

### Economical

Window and roller shutter installed in one step.

### Practical

Effective protection against insects thanks to the integrated insect screen roller blind.



### Construction limit values

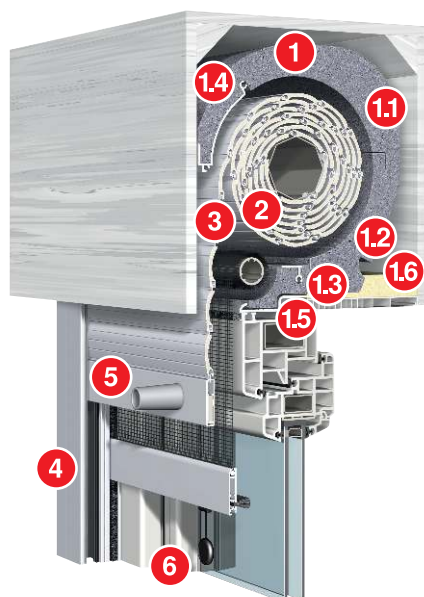
|                      |                  |
|----------------------|------------------|
| Maximum order width  | 3000 mm          |
| Maximum order height | 2600 mm          |
| Maximum order area   | 7 m <sup>2</sup> |



### Product characteristics

- stable system with insulating shell from polystyrene
- for use in existing boxes
- Insect screen, optional

## Components



|     |                                     |     |                                       |
|-----|-------------------------------------|-----|---------------------------------------|
| 1   | Box or insulating shell             | 1.6 | Inspection cover (optional)           |
| 1.1 | Top insulating shell                | 2   | Shaft                                 |
| 1.2 | Bottom insulating shell (removable) | 3   | Roller shutter curtain                |
| 1.3 | Insulating wedge                    | 4   | Lateral guidance                      |
| 1.4 | Reinforcement profile               | 5   | Bottom rail                           |
| 1.5 | Unwind strip                        | 6   | Insect screen roller blind (optional) |

### Box

#### Box = insulating shell

|                     |                                 |
|---------------------|---------------------------------|
| Material            | Polystyrene, expanded (Neopor®) |
| Material colour     | Grey                            |
| Box sizes           | 205, 225                        |
| Unwinding direction | Right-rolling blind             |

- Lower insulating shell detachable for inspection
- An additional stabilising profile will be supplied for order widths from 2500 mm onwards.

#### + Side cover

##### Side covers for RE-RO

|          |                                  |
|----------|----------------------------------|
| Material | Polyamide, fibreglass-reinforced |
|----------|----------------------------------|

- The side cover connected to the guide rails via a catch mechanism.
- Additional side cover insulation made of Neopor is optionally available.

#### + Inspection cover

##### Inspection cover RE-RO

|                 |         |
|-----------------|---------|
| Material        | Plastic |
| Material colour | White   |

- **Scope of delivery for inspection cover:** Inspection cover with bonded insulation, lateral plaster pieces (min. 25 mm) and cover profiles

- **Improvement of sound insulation:** Optional inspection cover with sound absorbing insert available for improving sound insulation

#### + Reinforcement profile

##### Reinforcement profile

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Plain               |

#### + Connecting tab

##### Connecting tab

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Plain               |

### Window connection

#### Window connection via unwind strip

|                 |                                                                                        |
|-----------------|----------------------------------------------------------------------------------------|
| Material        | Plastic                                                                                |
| Surface         | Plastic                                                                                |
| Material colour | White                                                                                  |
| Material, notes | Depending on the window type, unwind strips are in some cases also available in black. |

### Shaft

#### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

### Roller shutter curtain

- A 36
- K 36

+ see "Roller shutter curtain", Page 274

### Bottom rail

- Flat end rail

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

### Guide variants

- Rail guidance

### Guide rail

- Guide rail 44-25

Guide rail, optional:

- Guide rail 44-44
- Guide rail 44-32
- Guide rail 58-25
- Guide rail, 58x44 mm
- Guide rail 58-32

+ see "Guide rails", Page 282

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

### Radio motor, optional

- WMS Radio motor type WMS-RP inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RP incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with extendible gear

### Gear

- Crank type 1, crank

### Belt

- Belt with extendible belt disc, 23 mm belt

+ see "Drive variants", Page 329

## Colours

- WAREMA Colour World
- Colours for shutter profiles

Colours, optional:

- Anodised C0
- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

+ see "Colours", Page 12

## Insect screen

Insect screen, optional:

- Integrated insect screen roller blind
- Integrated insect screen swivel door

+ see "Integrated insect screen", Page 246

## Supplementary accessories

- Integrated insect screen

+ see "Supplementary accessories", Page 235

## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Combinations:** only possible as individual units, no continuous boxes
- **Maximum number of single roller shutter curtains within a group unit:** 2

| Configuration variants                                 | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|--------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b>                          |                     |                     |                      |                    |                                   |                                  |
| A 36                                                   |                     | 3000 mm             | 2600 mm              | 7 m <sup>2</sup>   | 3000 mm                           | 14 m <sup>2</sup>                |
| K 36                                                   |                     | 2000 mm             | 2600 mm              | 3,2 m <sup>2</sup> | 3000 mm                           | 6,4 m <sup>2</sup>               |
| <b>Drive variants</b>                                  |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                                          | 760 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor                                    | 780 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt                                           | 500 mm              |                     |                      |                    |                                   |                                  |
| <b>Insect screen</b>                                   |                     |                     |                      |                    |                                   |                                  |
| Insect screen roller blind with soft-raise function    | 740 mm              | 2000 mm             | 2500 mm              | 5 m <sup>2</sup>   |                                   |                                  |
| Insect screen roller blind without soft-raise function | 590 mm              | 2000 mm             | 2500 mm              | 5 m <sup>2</sup>   |                                   |                                  |

## Maximum order area per operating class

| Configuration variants                            | Operating classes  |                   |                   |
|---------------------------------------------------|--------------------|-------------------|-------------------|
|                                                   | Design-related     | Operating class 1 | Operating class 2 |
| <b>Roller shutter curtain + Drive variants</b>    |                    |                   |                   |
| A 36 + Motor                                      | 14 m <sup>2</sup>  |                   |                   |
| K 36 + Motor                                      | 6,4 m <sup>2</sup> |                   |                   |
| A 36 + Crank with extendible gear                 | 4 m <sup>2</sup>   | 4 m <sup>2</sup>  | 4 m <sup>2</sup>  |
| K 36 + Crank with extendible gear                 | 4 m <sup>2</sup>   | 4 m <sup>2</sup>  | 4 m <sup>2</sup>  |
| A 36 + Belt with extendible belt disc, 23 mm belt | 4 m <sup>2</sup>   | 4 m <sup>2</sup>  | 2 m <sup>2</sup>  |
| K 36 + Belt with extendible belt disc, 23 mm belt | 4 m <sup>2</sup>   | 4 m <sup>2</sup>  | 2 m <sup>2</sup>  |

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order height per box size

| Configuration variants        | Box sizes |         |
|-------------------------------|-----------|---------|
|                               | 205       | 225     |
| <b>Roller shutter curtain</b> |           |         |
| A 36                          | 1700 mm   | 2600 mm |
| K 36                          | 1700 mm   | 2600 mm |

## Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2780 mm | 2705 mm | 2560 mm | 2265 mm | 1825 mm | 1500 mm |
| K 36                          | 2000 mm               | 1750 mm | 1600 mm | 1400 mm | 1200 mm | 1000 mm | 900 mm  |

Wind resistance class 1 generally applies to installed insect screen roller blinds.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

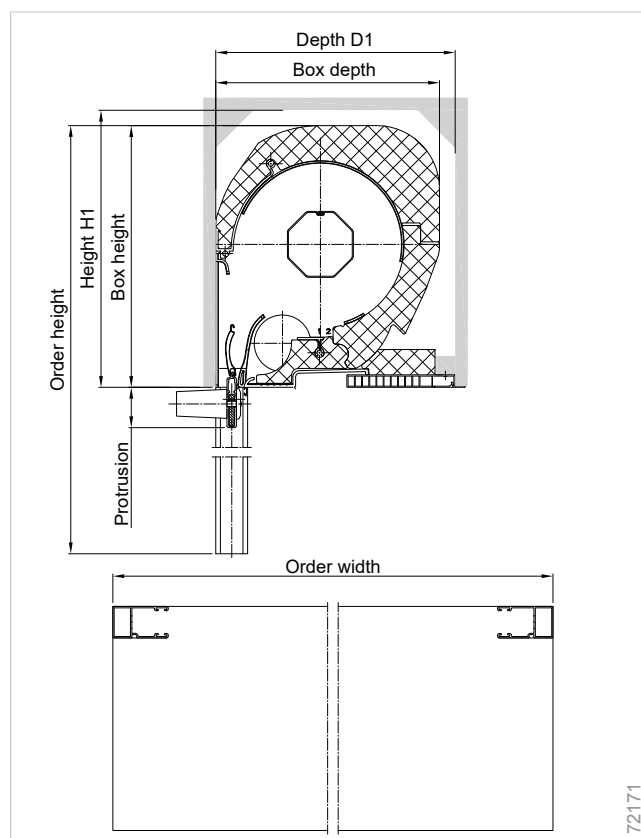
Standards

## Dimension determination

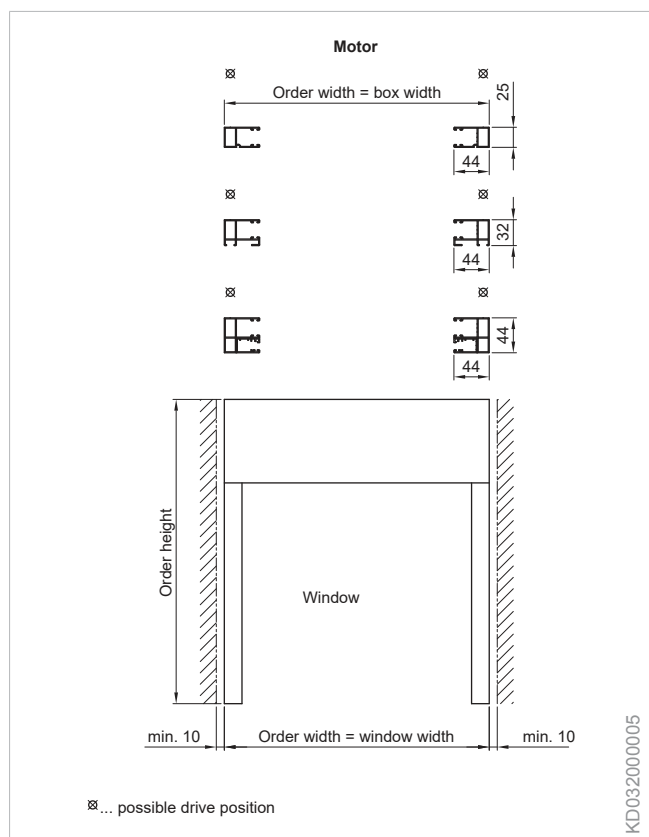
| Reference dimension | Dimension determination                                               |
|---------------------|-----------------------------------------------------------------------|
| Order width         | Back edge of the guide rail to back edge of the guide rail            |
| Order height        | Bottom edge of the guide rail to top edge of the box/insulating shell |
| Box height          | see box dimensions                                                    |
| Box depth           | see box dimensions                                                    |

- Operation side seen from inside
- Ensure air gap of at least 10 mm between back edge of window and reveal (especially for crank, belt).

### Order dimension determination RE-RO

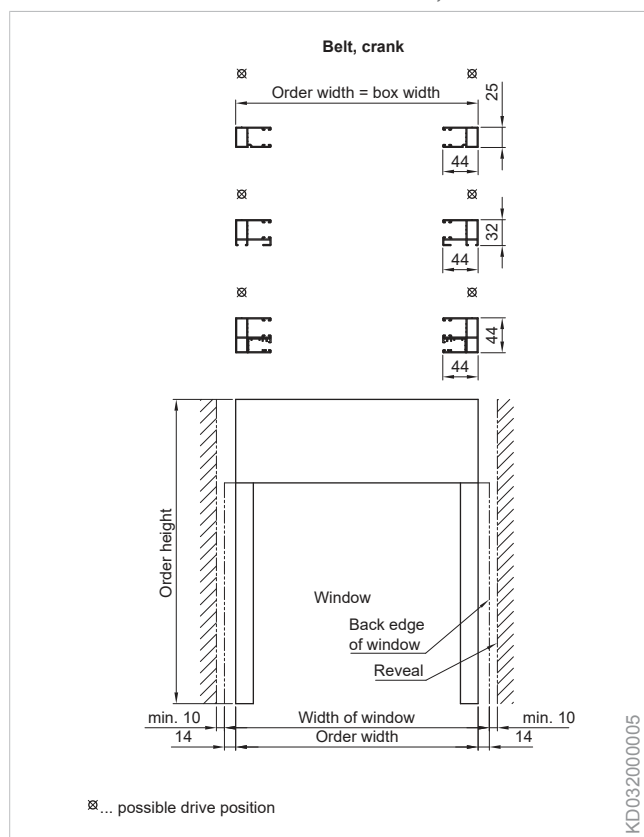


### RE-RO order data for individual units: motor



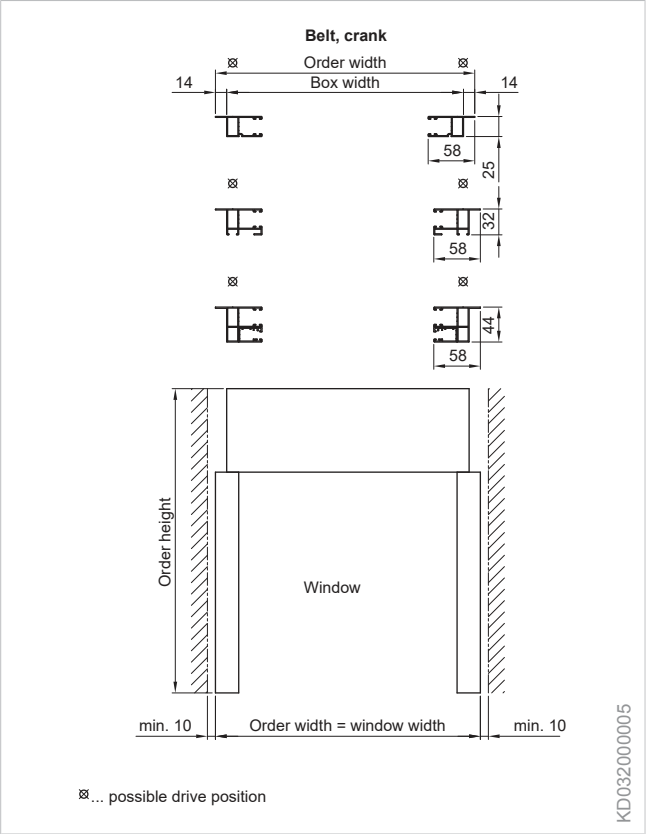
A clearance of at least 10 mm between the back edge and the reveal should be ensured.

### RE-RO order data for individual units: belt, crank



A clearance of at least 10 mm between the back edge and the reveal must be ensured (especially for belt and crank operation).

RE-RO order data for individual units: belt, crank with leg guide rails



A clearance of at least 10 mm between the back edge and the reveal must be ensured (especially for belt and crank operation).

Planning

Front-mounted roller shutters

Top-mounted roller shutters

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Supplementary accessories

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Drive variants

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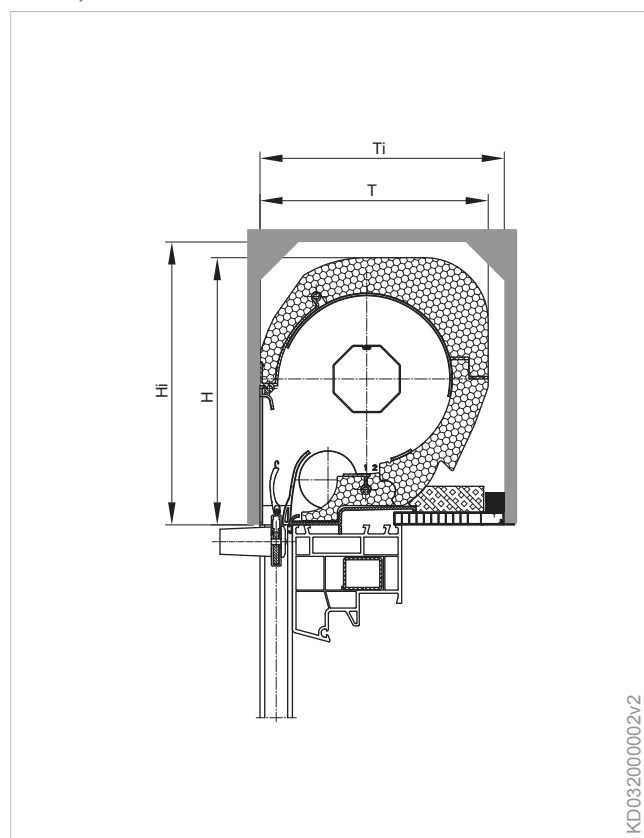
## Box types

| Box size | Height H | Depth D | Height Hi min. | Depth Ti min. |
|----------|----------|---------|----------------|---------------|
| 205      | 208 mm   | 178 mm  | 210 mm         | 180 mm        |
| 225      | 232 mm   | 205 mm  | 235 mm         | 215 mm        |

**Height Hi min.:** Required minimum height of the on-site lintel box

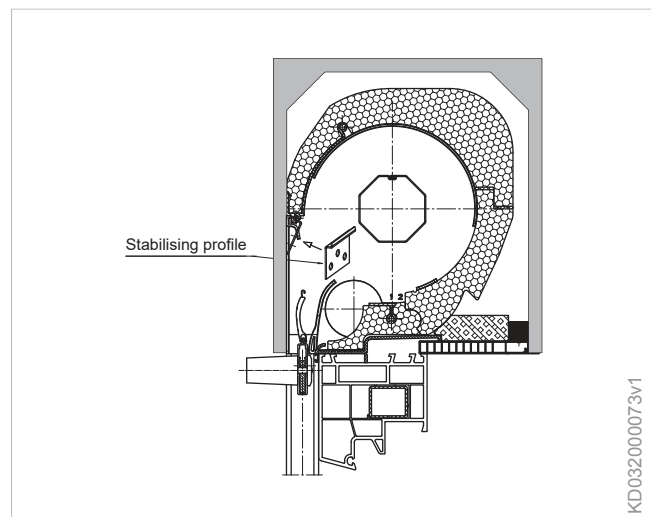
**Depth Ti min.:** Required minimum depth of the on-site lintel box

## RE-RO, box dimensions



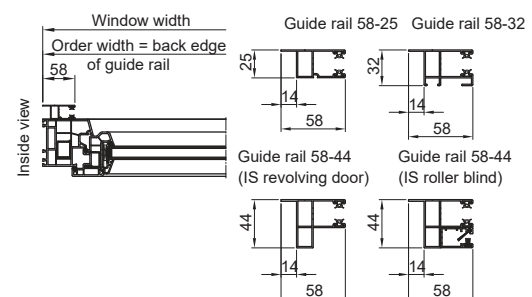
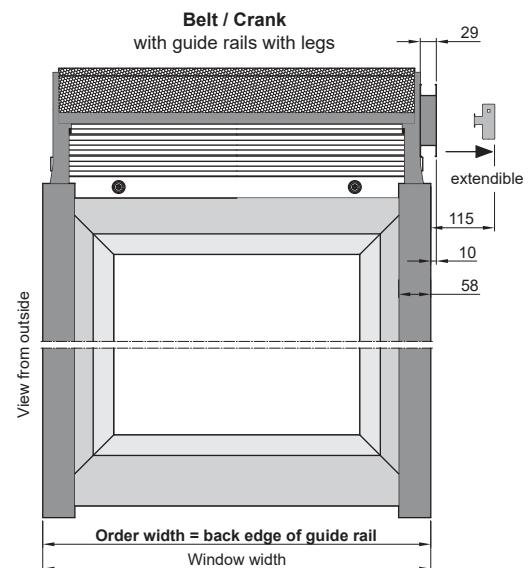
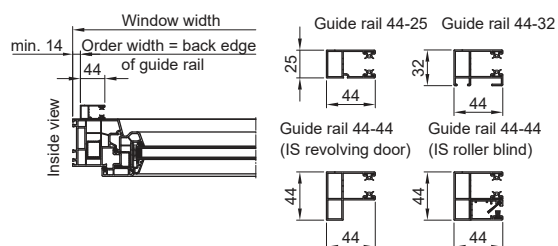
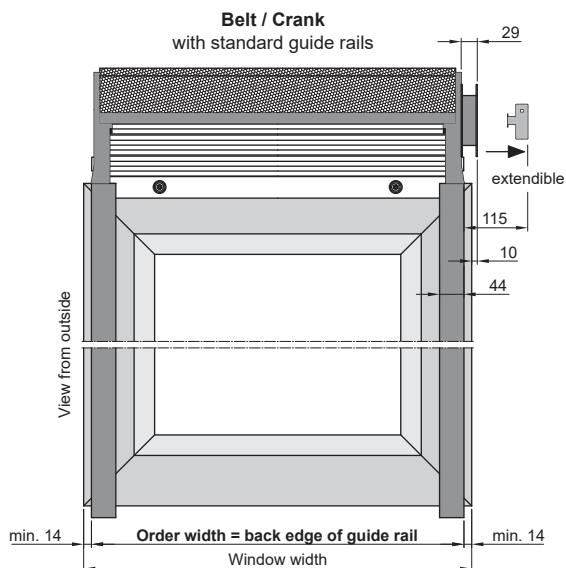
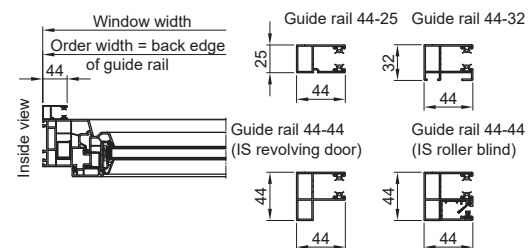
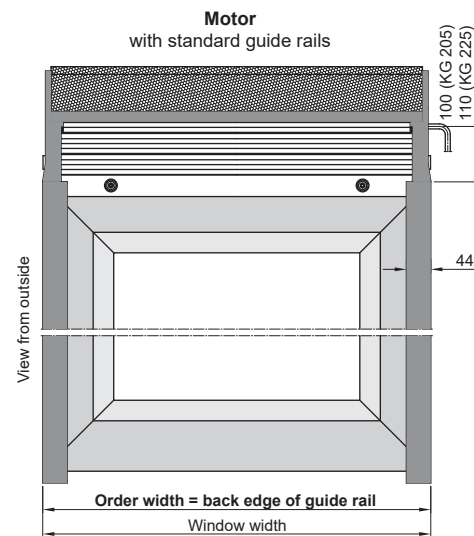
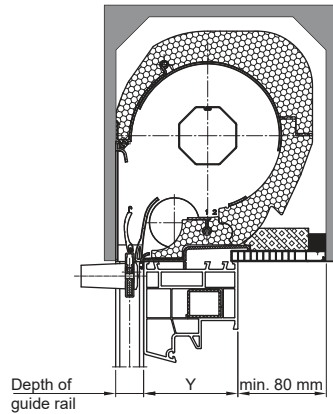
## Details

### Stabilising profile



## Additional product information

### Drive details



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

KD032000074v1

## Group units

The products delivered as individual units, i.e. no continuous box is possible. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

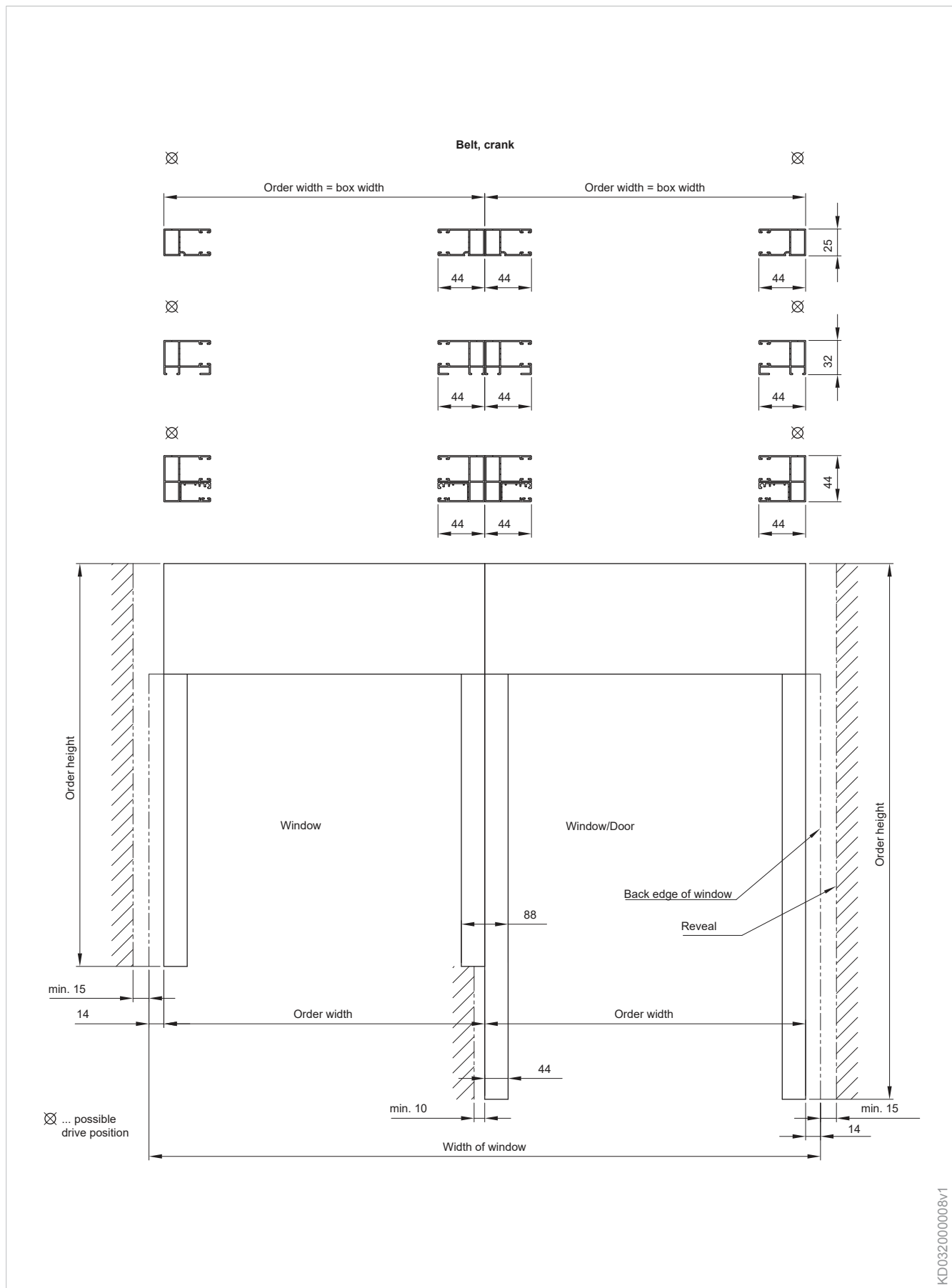
- **Order data:** Always seen from inside, from left to right
- **Beginning and end position:** Please indicate on order form

### Coupling of roller shutter curtains:

- A maximum of 2 roller shutter curtain can be coupled
- Maximum surface for coupled roller shutter curtains: 4.0 m<sup>2</sup>
- Coupling of individual roller shutter curtains on-site
- Observe 10 mm clearance to the reveal on both sides

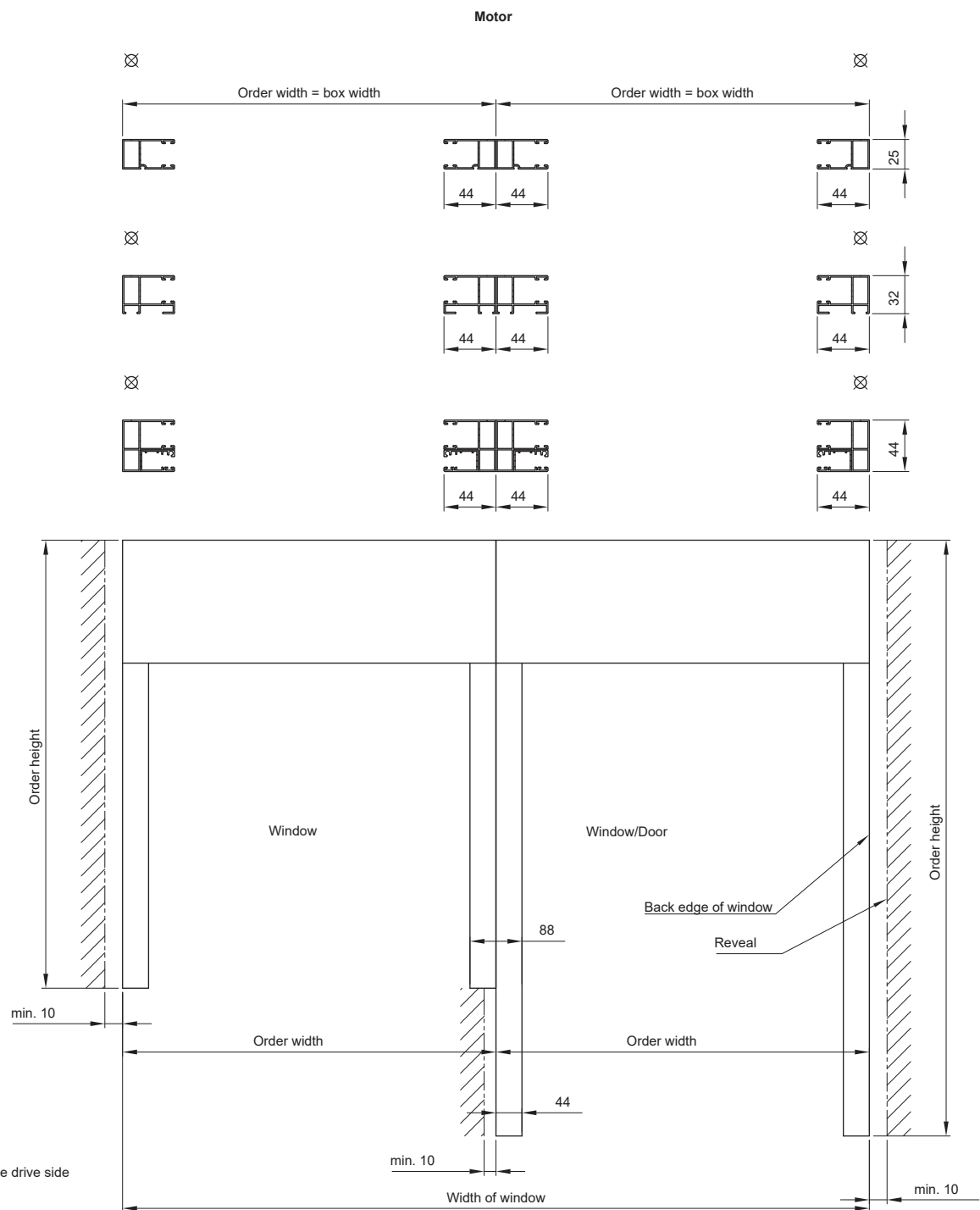
Units with two external drives require at least 15 mm clearance to the reveal on both sides.

# Order data for group units (door/window combinations), crank operation, belt



- Models with two drives require a clearance of at least a 15 mm to the reveal on both sides (projection of belt disc over back edge of window is 11 mm)
- Can be reduced to a clearance of 10 mm on both sides for coupled roller shutter curtains (with version as same height units)

# Order data for group units (door/window combinations), motor operation



KD032000010v1

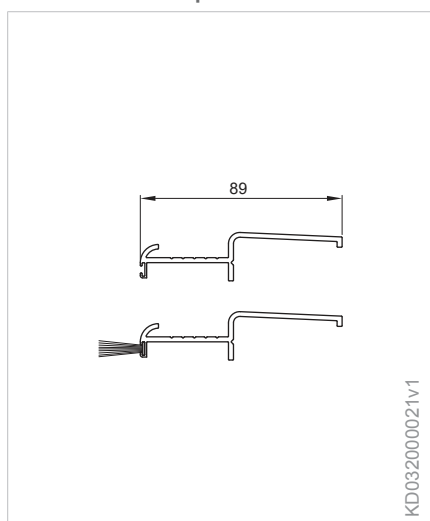
## Unwind strips

- Unwind strip without brush seal as standard, optionally possible with brush seal
- Product variant with insect screen with brush seal as standard

### Brush seal length:

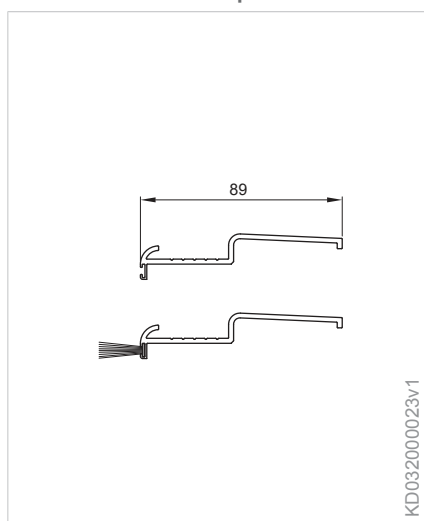
- For the "Optional brush seal" product variant or with insect screen roller blind: length 7 mm
- For the product variant with insect screen swivel door: length 20 mm

### Plastic unwind strip for windows



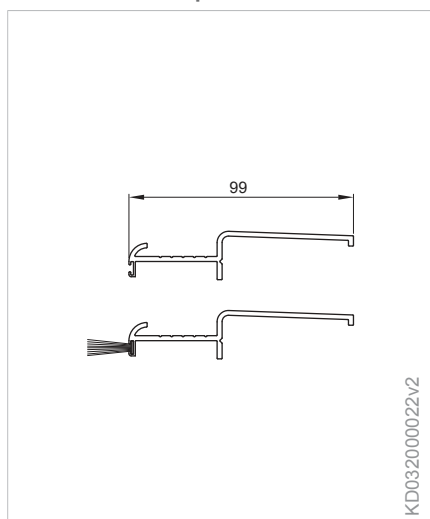
For window frame depth up to 80 mm Art. no. 301517

### Aluminium unwind strip for wooden or aluminium windows



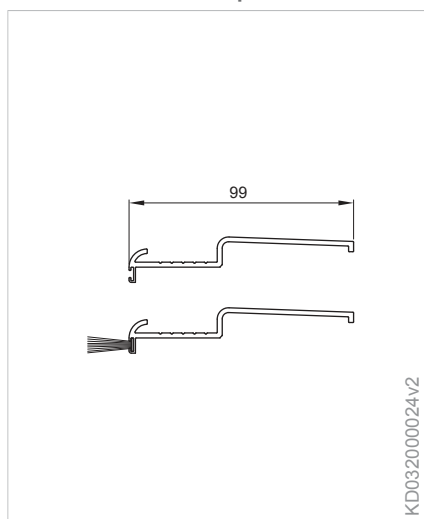
For window frame depth up to 80 mm Art. no. 301557

### Plastic unwind strip for windows



For a window frame depth of 80 mm to 95 mm Art. no. 301518

### Aluminium unwind strip for wooden or aluminium windows



For a window frame depth of 80 mm to 95 mm Art. no. 301558

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

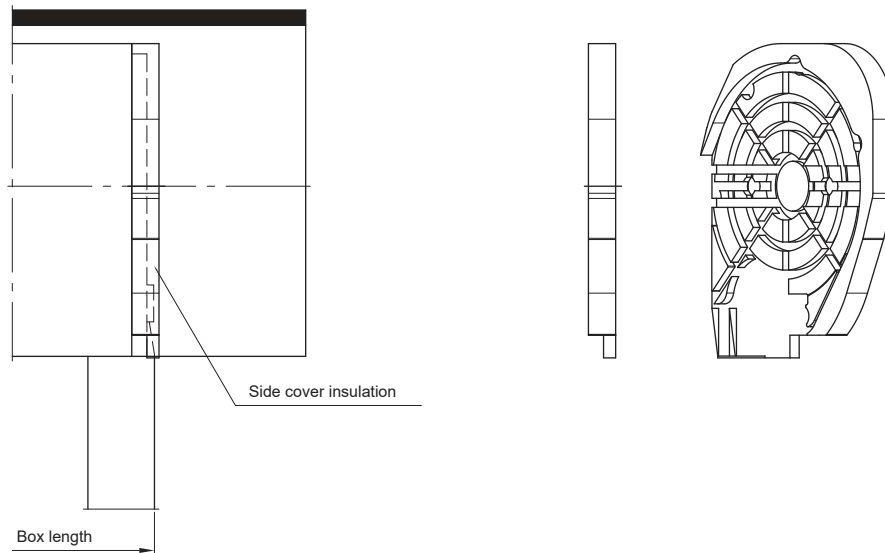
Drive variants

Standards

## Side cover insulation (optional)

Additional optional insulation of side cover

### RE-RO, side cover insulation



KD032000018v1

## Inspection cover (optional)

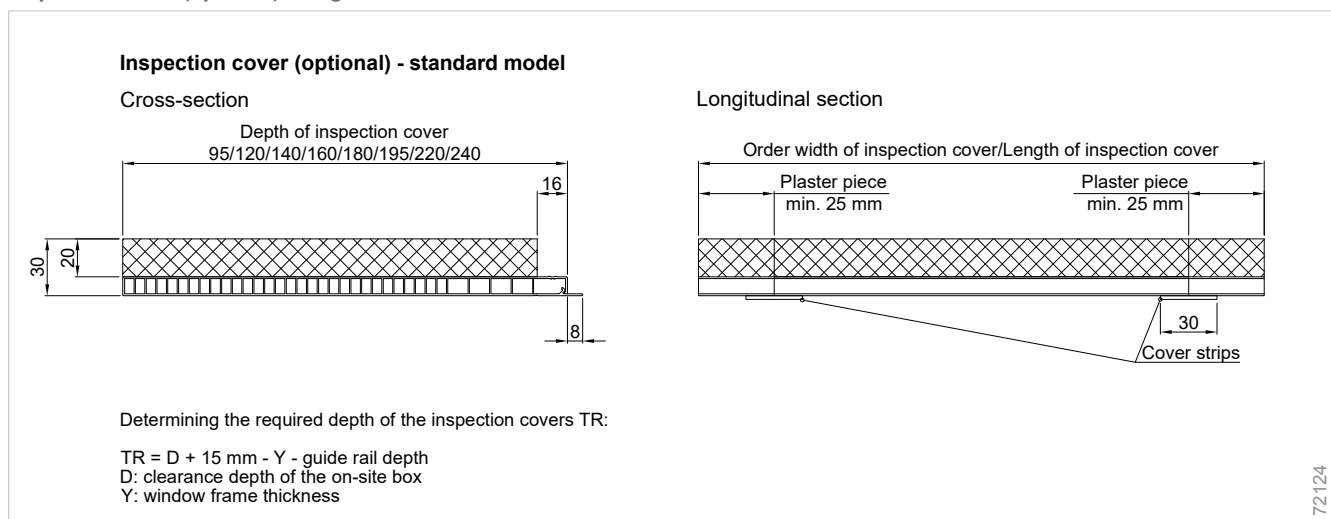
Inspection cover for closure in the room in single design or special version with sound absorbing insert for improved sound insulation

- Inspection cover including plaster pieces (min. 25 mm) and cover panel strips. The plaster pieces should lie at least 20 mm on the reveal.
- The heat transmission coefficients were tested with the inspection cover shown here. We recommend using this inspection cover.

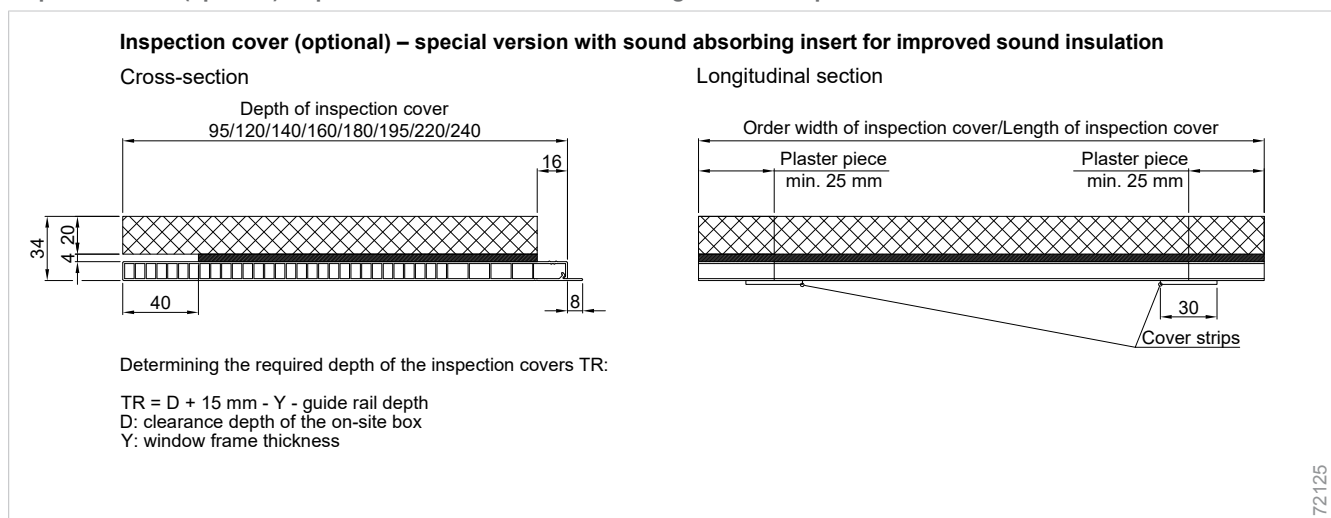
### Inspection cover (article numbers)

| Depth  | Single model | Special version with sound absorbing insert |
|--------|--------------|---------------------------------------------|
| 95 mm  | 311187       | 311195                                      |
| 120 mm | 311188       | 311196                                      |
| 140 mm | 311189       | 311197                                      |
| 160 mm | 311190       | 311198                                      |
| 180 mm | 311191       | 311199                                      |
| 195 mm | 311192       | 311200                                      |
| 220 mm | 311193       | 311201                                      |
| 240 mm | 311194       | 311202                                      |

### Inspection cover (optional) - single model



### Inspection cover (optional) – special version with sound absorbing insert for improved sound insulation





## Integrated insect screen roller blind (optional)

### Construction limit values with integrated insect screen roller blind

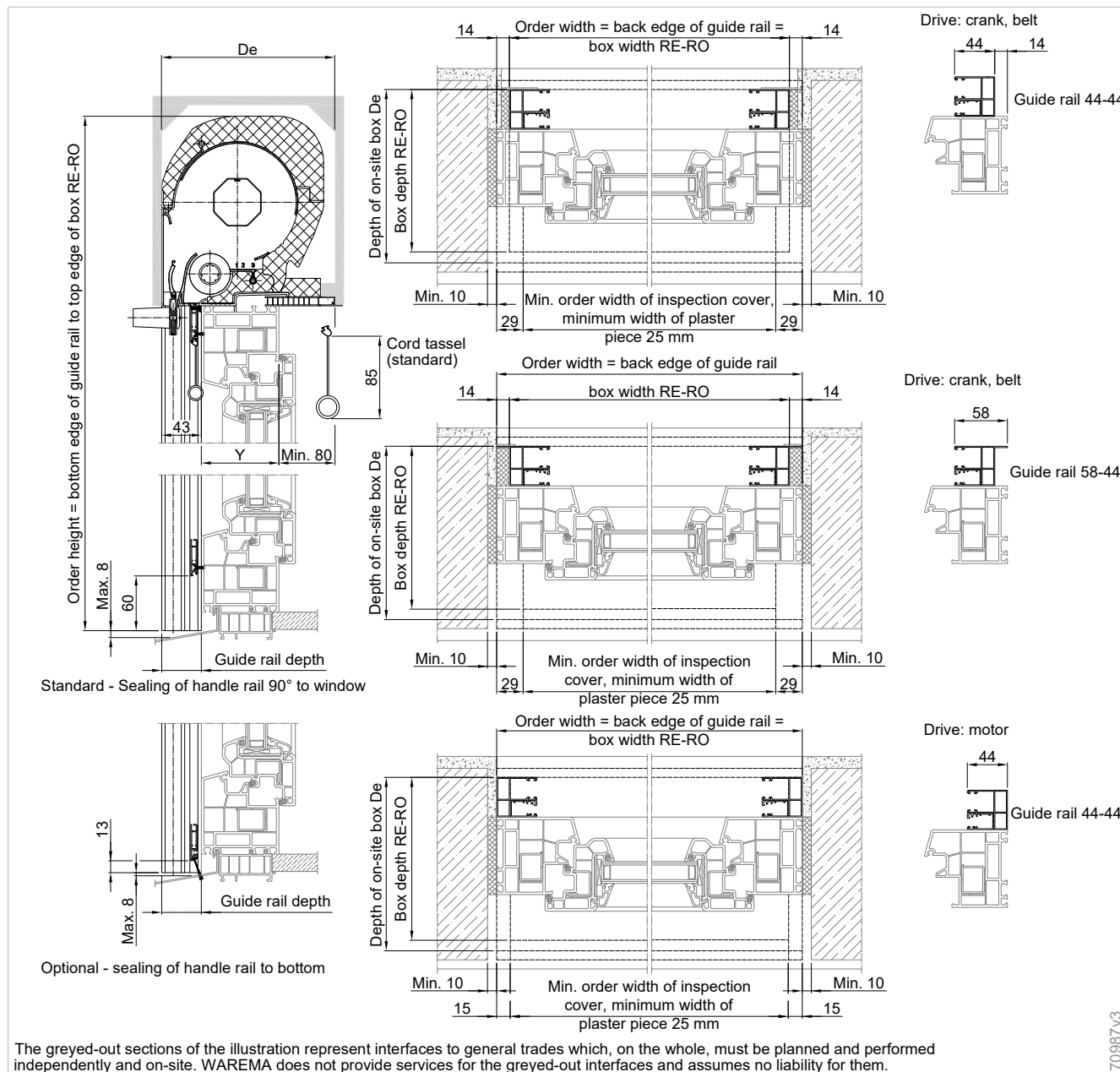
| Minimum width | Maximum width | Minimum height | Maximum height | Maximum area       |
|---------------|---------------|----------------|----------------|--------------------|
| 750 mm        | 2000 mm       | -              | 2700 mm        | 5.0 m <sup>2</sup> |

#### Type-dependent limitations:

We supply insect screen guide rails C0 anodised as standard.

**Drawings for top-mounted roller shutters with additional integrated insect screen products can be found in the TechDataPLUS.**

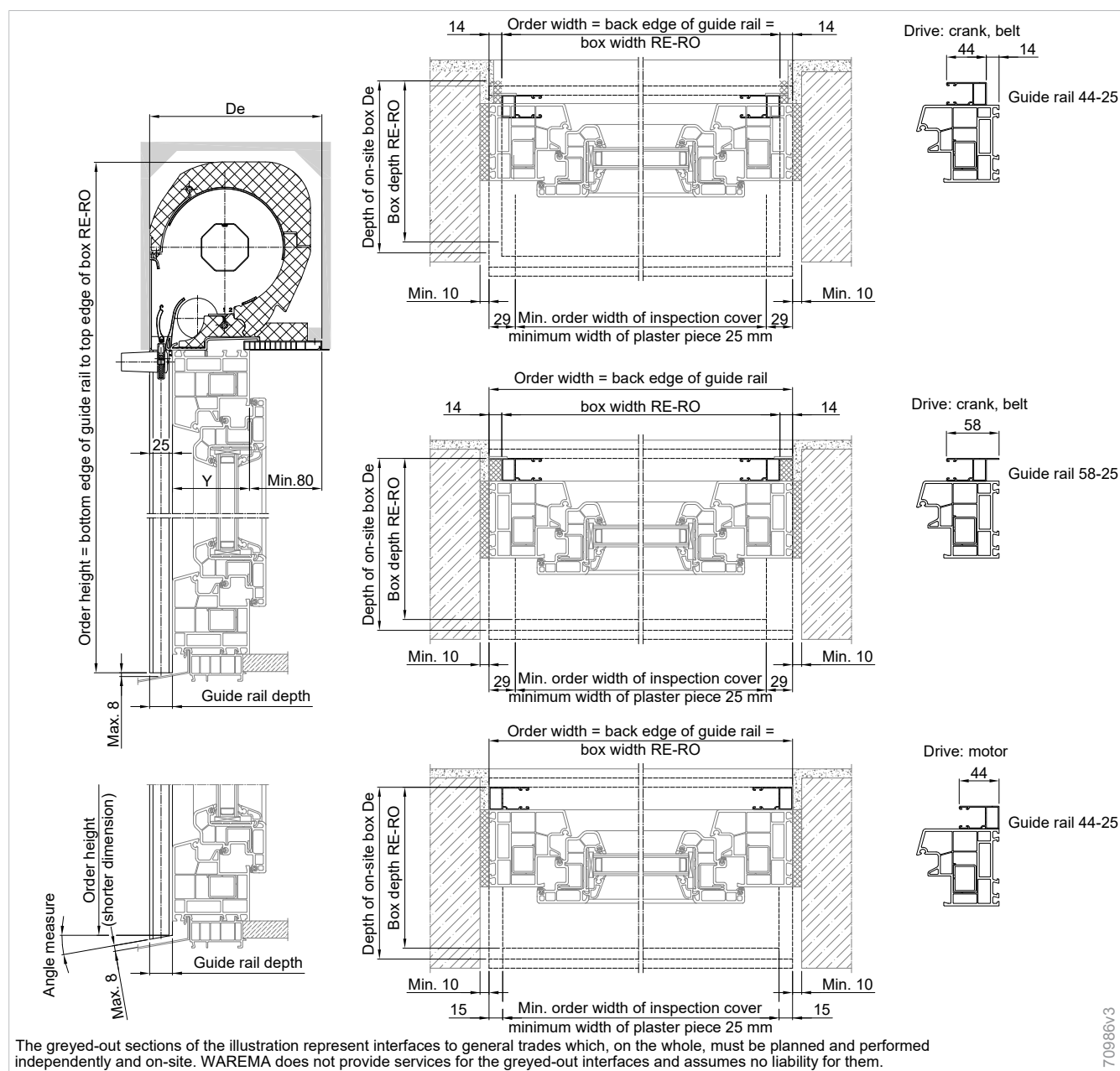
### RE-RO with integrated insect screen roller blind



+ see "Integrated insect screen", Page 246

# Mounting examples

## Standard model



Planning

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## Further information

Configure and plan your product with myWAREMA  
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Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



TechDataPLUS Top-mounted roller shutters  
<https://docs.warema.com/1.1314.0>





# Contents

## Shaft roller shutters

|                                               |     |                               |
|-----------------------------------------------|-----|-------------------------------|
| SE-RO.....                                    | 204 | Planning                      |
| Roller shutters for on-site lintel boxes..... | 216 | Front-mounted roller shutters |
|                                               |     | Top-mounted roller shutters   |
|                                               |     | Shaft roller shutters         |
|                                               |     | Supplementary accessories     |
|                                               |     | Components                    |
|                                               |     | Drive variants                |
|                                               |     | Standards                     |



# Shaft roller shutters

## SE-RO

### Simple

Roller shutter components for installation in existing shafts. Bearing and shaft are clipped onto the guide rails and require no separate fixation.

### Functional

Projection systems available in different variants.

### Versatile

Aluminium parts can be powder-coated in any of the large selection of over 200 colours.



### Construction limit values

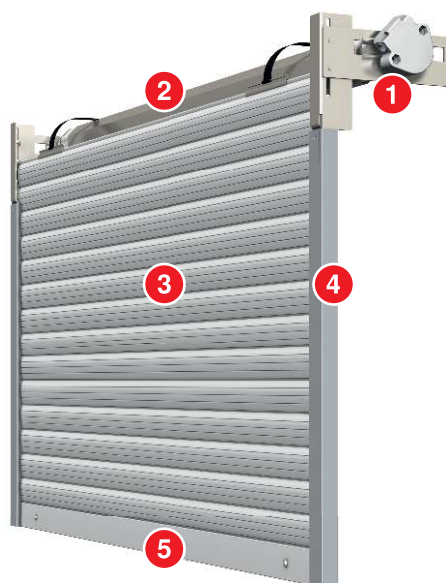
|                      |                   |
|----------------------|-------------------|
| Maximum order width  | 3500 mm           |
| Maximum order height | 3500 mm           |
| Maximum order area   | 10 m <sup>2</sup> |



### Product characteristics

- Installation in existing shafts
- manual or electric operation
- Insect screen, optional

## Components



- |   |                        |   |                  |
|---|------------------------|---|------------------|
| 1 | Bearing                | 4 | Lateral guidance |
| 2 | Shaft                  | 5 | Bottom rail      |
| 3 | Roller shutter curtain |   |                  |

### Bearing

#### Bearing brackets, adjustable

|          |                  |
|----------|------------------|
| Material | Galvanised steel |
| Surface  | Plain            |
| Height   | 125 mm           |
| Depth    | 160 mm           |

### Shaft

#### Shaft size 52

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 52 mm     |

### Roller shutter curtain

- A 36
- A 44

+ see "Roller shutter curtain", Page 274

### Bottom rail

- Flat end rail

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

## Guide variants

- Rail guidance

### Guide rail

- Guide rail 30-19.5

+ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

### Basic motor

- Basic motor

### Radio motor, optional

- WMS Radio motor type WMS-RP inc. WMS Set basic (WMS Wall-mounted transmitter basic with frame, white, 1-channel)
- EWFS radio motor type W-RP incl. EWFS Wall-mounted transmitter 1-channel and wall-mounted transmitter slim, white (without frame)

### Crank

- Crank with extendible gear

### Gear

- Crank type 1, crank

### Belt

- Extendible belt disc, belt 14 mm

+ see "Drive variants", Page 329

## Colours

- WAREMA Colour World
- Anodised C0
- Colours for shutter profiles

Colours, optional:

- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

+ see "Colours", Page 12

## Construction limit values

### Note on dimension determination:

- When determining maximum areas, always note the area diagram.
- **Maximum number of single roller shutter curtains within a group unit:** 2
- **Coupling:** the distance between the guide rails on coupled roller shutter curtains is 10 mm.

| Configuration variants        | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order width of group unit | Maximum order area of group unit |
|-------------------------------|---------------------|---------------------|----------------------|--------------------|-----------------------------------|----------------------------------|
| <b>Roller shutter curtain</b> |                     |                     |                      |                    |                                   |                                  |
| A 36                          |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 6000 mm                           | 14 m <sup>2</sup>                |
| A 44                          |                     | 3500 mm             | 3500 mm              | 10 m <sup>2</sup>  | 7000 mm                           | 13 m <sup>2</sup>                |
| <b>Drive variants</b>         |                     |                     |                      |                    |                                   |                                  |
| Tubular motor                 | 656 mm              |                     |                      |                    |                                   |                                  |
| Radio tubular motor           | 673 mm              |                     |                      |                    |                                   |                                  |
| Crank / Belt                  | 500 mm              |                     |                      |                    |                                   |                                  |

## Maximum order area per operating class

| Configuration variants                             | Operating classes |
|----------------------------------------------------|-------------------|
|                                                    | Design-related    |
| <b>Roller shutter curtain + Drive variants</b>     |                   |
| A 36 + Motor                                       | 14 m <sup>2</sup> |
| A 44 + Motor                                       | 13 m <sup>2</sup> |
| A 36 + Crank with extendible gear                  | 5 m <sup>2</sup>  |
| A 44 + Crank with extendible gear                  | 5 m <sup>2</sup>  |
| A 36 + Belt with extendible belt disc (14 mm belt) | 2 m <sup>2</sup>  |
| A 44 + Belt with extendible belt disc (14 mm belt) | 2 m <sup>2</sup>  |

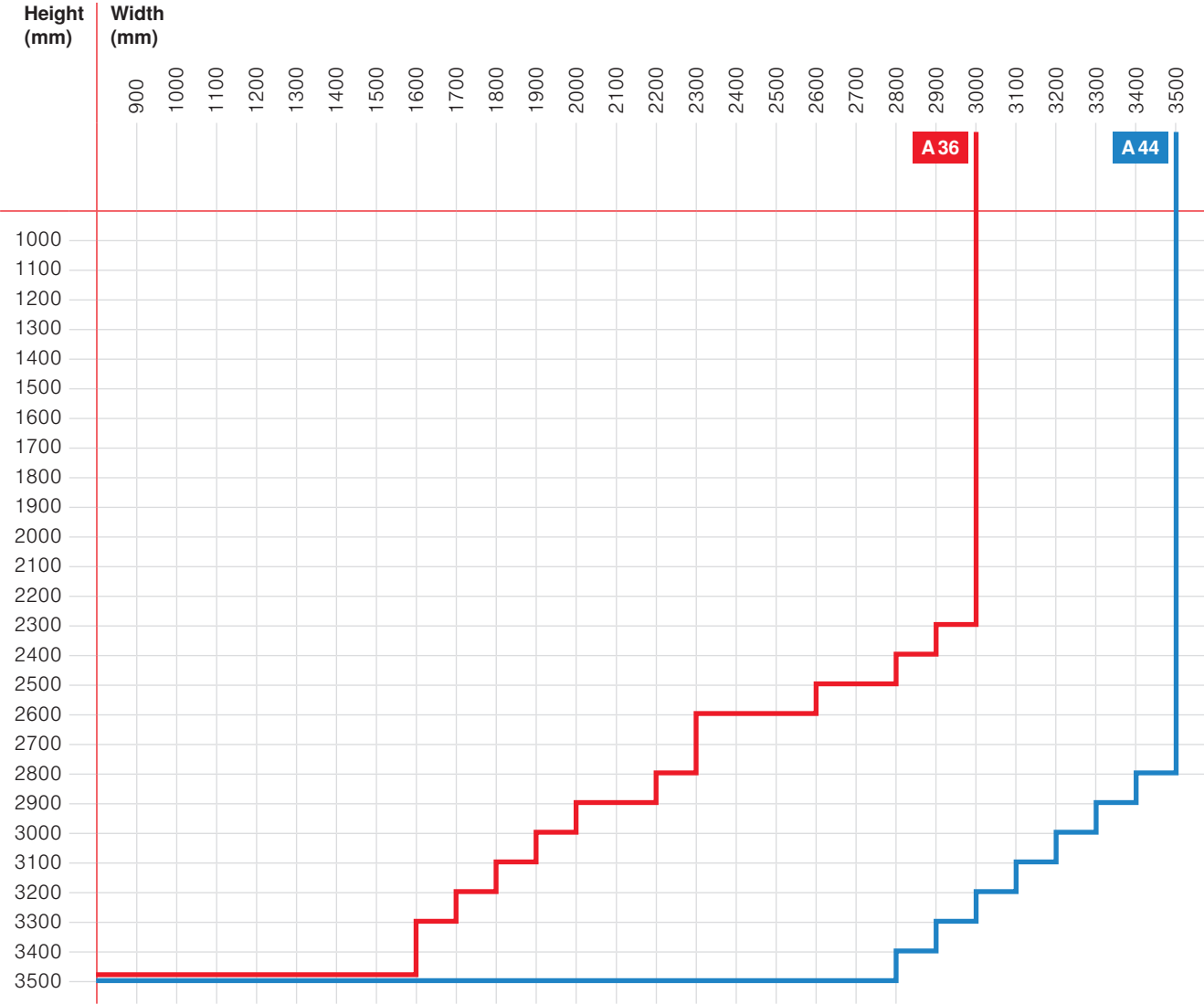
The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2750 mm | 2700 mm | 2550 mm | 2250 mm | 1800 mm | 1500 mm |
| A 44                          | 3500 mm               | 3250 mm | 3200 mm | 3000 mm | 2600 mm | 2050 mm | 1600 mm |

Area diagram for shaft roller shutter SE-RO (maximum dimensions for individual areas)



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

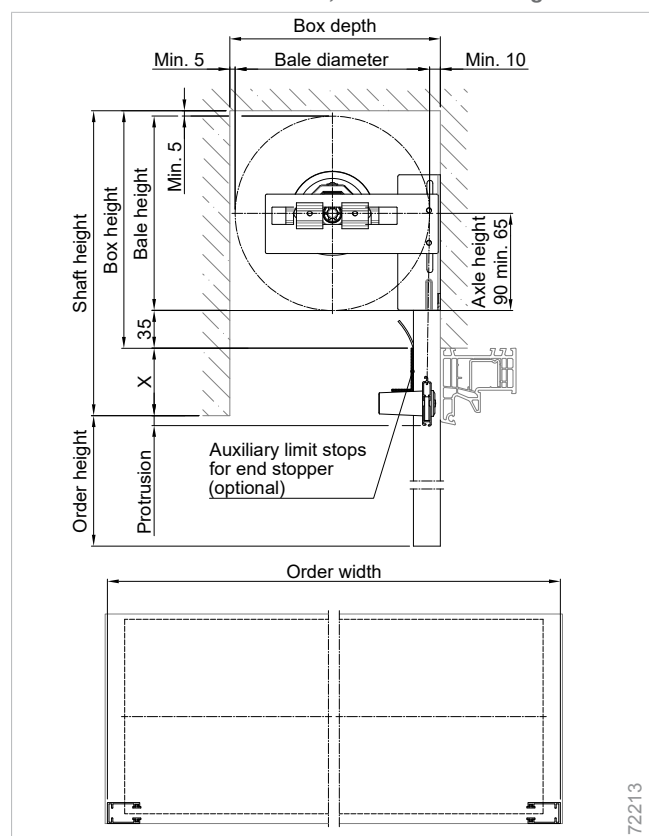


# Dimension determination

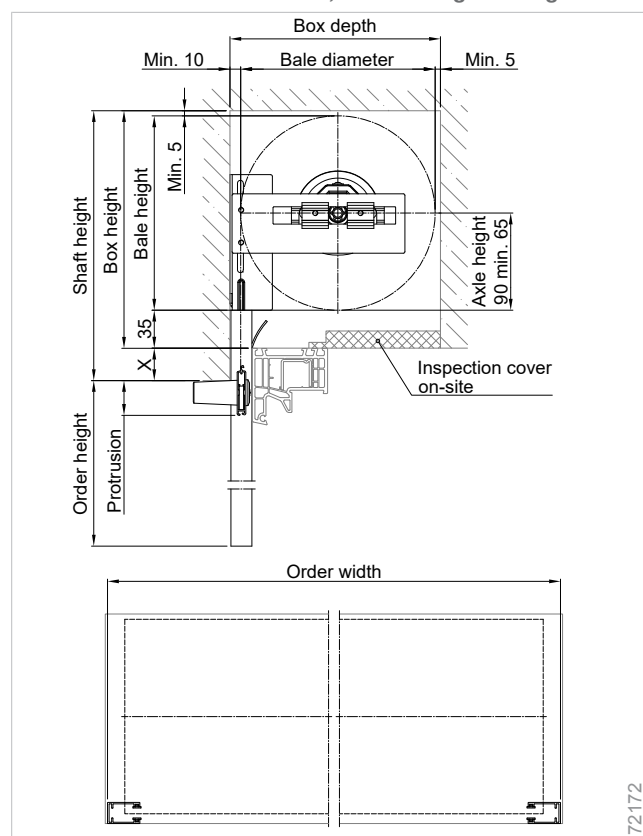
| Reference dimension | Dimension determination                                    |
|---------------------|------------------------------------------------------------|
| Order width         | Back edge of the guide rail to back edge of the guide rail |
| Order height        | Guide rail bottom edge to shaft bottom edge                |

Operation side seen from inside

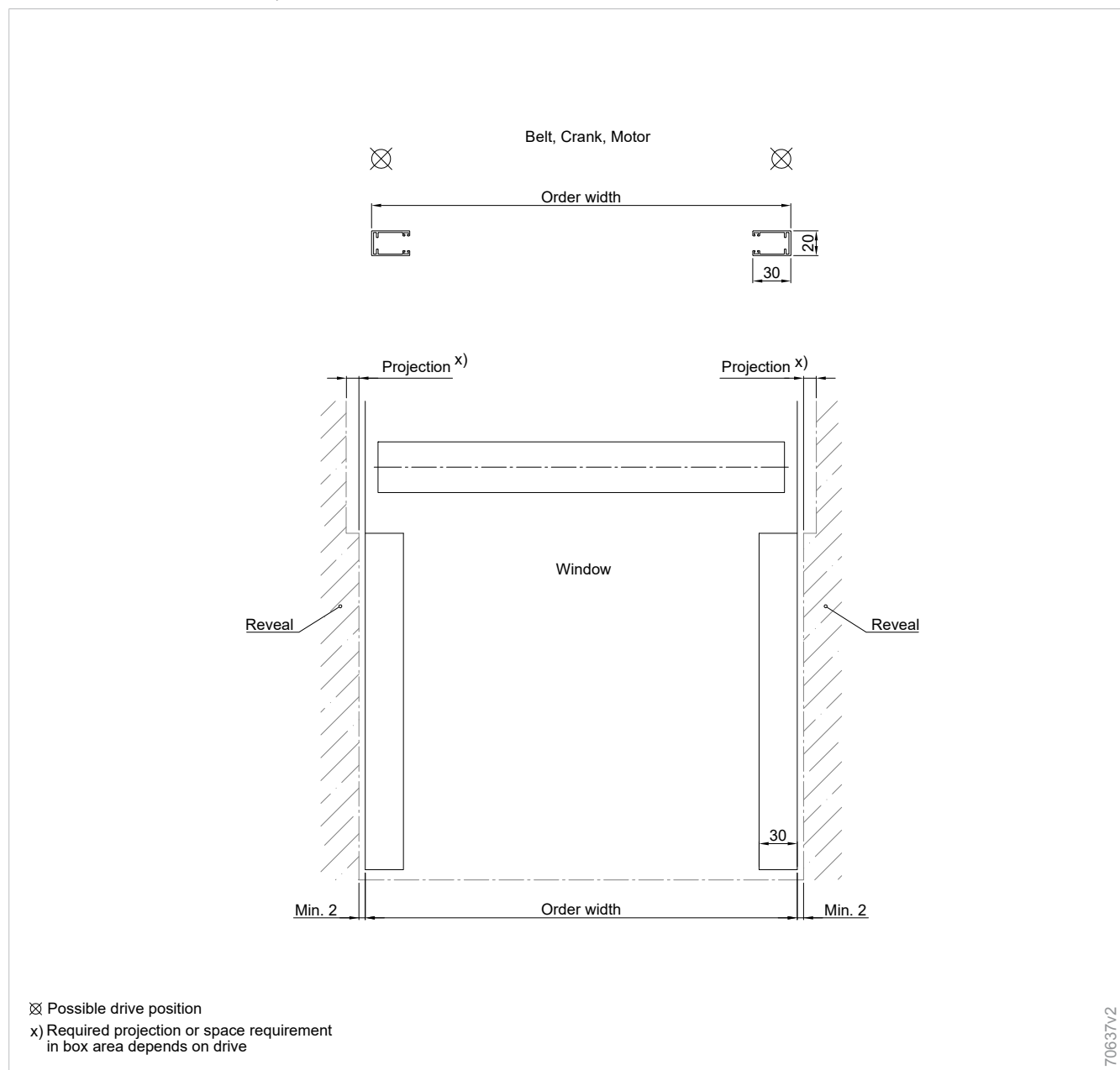
Order dimension determination, model as left-rolling blind



Order dimension determination, model as right-rolling blind



# Order dimension determination, individual unit



Please take the 5 mm console protrusion to the back edge of the guide rails into account

## Bale diameter A 36

### Bale diameter (all measurements in mm)

| Order height | Bale radius | Bale diameter | Bale height of preset console | Min. box depth | Min. box height | Recommended box height |
|--------------|-------------|---------------|-------------------------------|----------------|-----------------|------------------------|
| 1500         | 71          | 142           | 161                           | 165            | 176             | 201                    |
| 1750         | 74          | 148           | 164                           | 165            | 179             | 204                    |
| 2000         | 76          | 152           | 166                           | 167            | 181             | 206                    |
| 2250         | 81          | 162           | 171                           | 177            | 186             | 211                    |
| 2500         | 83          | 166           | 173                           | 181            | 188             | 213                    |
| 2750         | 87          | 174           | 177                           | 189            | 192             | 217                    |
| 3000         | 90          | 180           | 180                           | 195            | 195             | 220                    |
| 3250         | 92          | 184           | 182                           | 199            | 197             | 222                    |
| 3500         | 94          | 188           | 184                           | 203            | 199             | 224                    |

## Bale diameter A 44

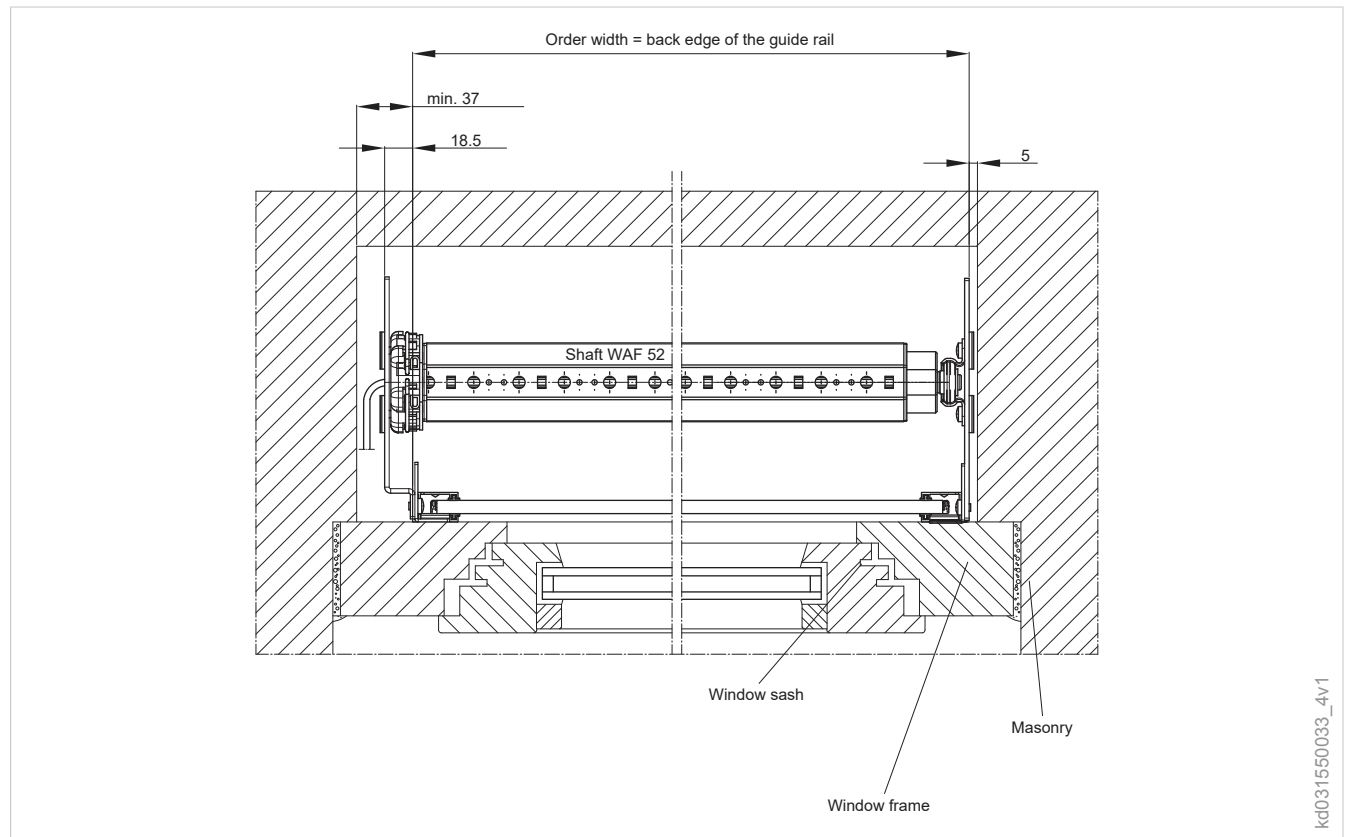
### Bale diameter (all measurements in mm)

| Order height | Bale radius | Bale diameter | Bale height of preset console | Min. box depth | Min. box height | Recommended box height |
|--------------|-------------|---------------|-------------------------------|----------------|-----------------|------------------------|
| 1500         | 79          | 158           | 169                           | 173            | 184             | 209                    |
| 1750         | 82          | 164           | 172                           | 179            | 187             | 212                    |
| 2000         | 85          | 170           | 175                           | 185            | 190             | 215                    |
| 2250         | 90          | 180           | 180                           | 195            | 195             | 220                    |
| 2500         | 91          | 182           | 181                           | 197            | 196             | 221                    |
| 2750         | 98          | 196           | 188                           | 211            | 203             | 228                    |
| 3000         | 99          | 198           | 189                           | 213            | 204             | 229                    |
| 3250         | 104         | 208           | 194                           | 223            | 209             | 234                    |
| 3500         | 106         | 212           | 196                           | 227            | 211             | 236                    |

## Additional product information

### Drive details, motor

#### Motor



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

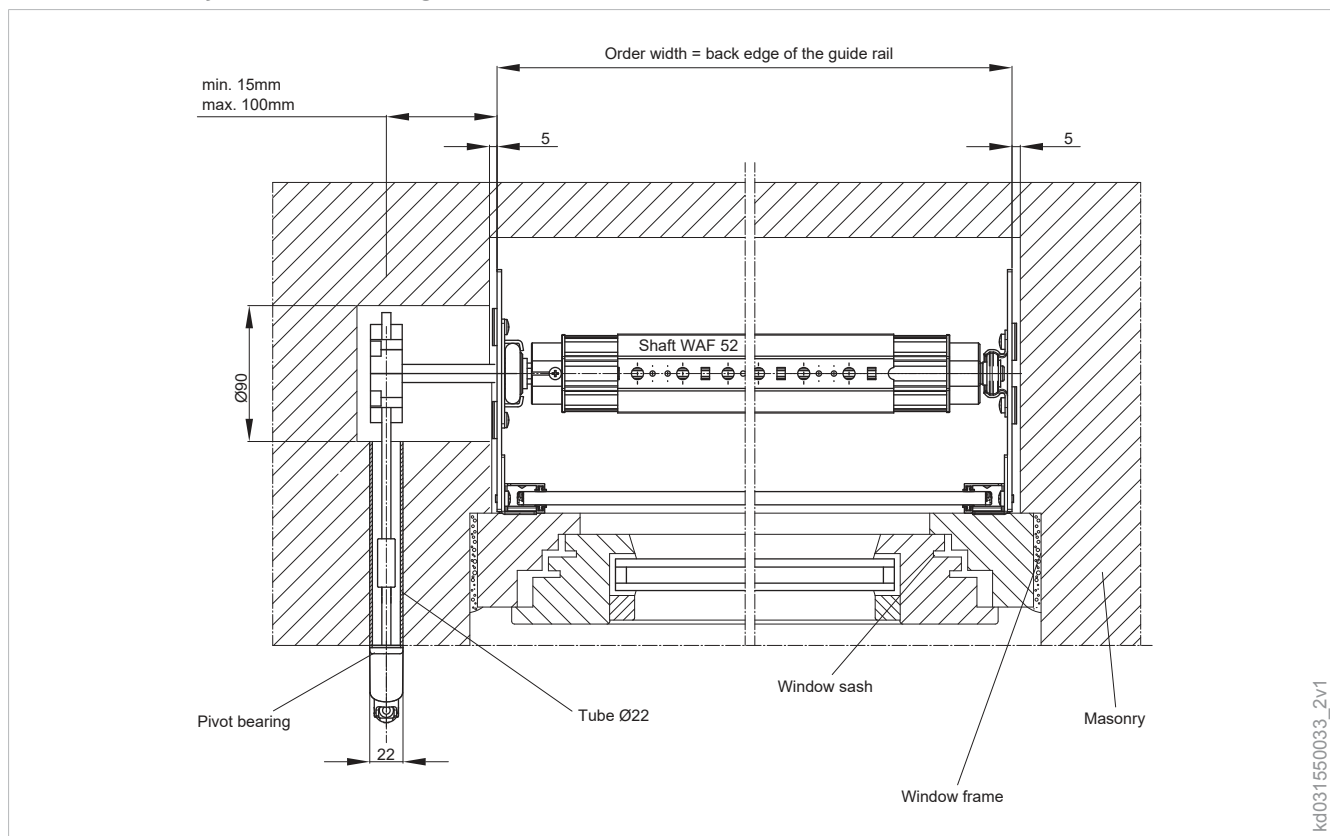
Components

Drive variants

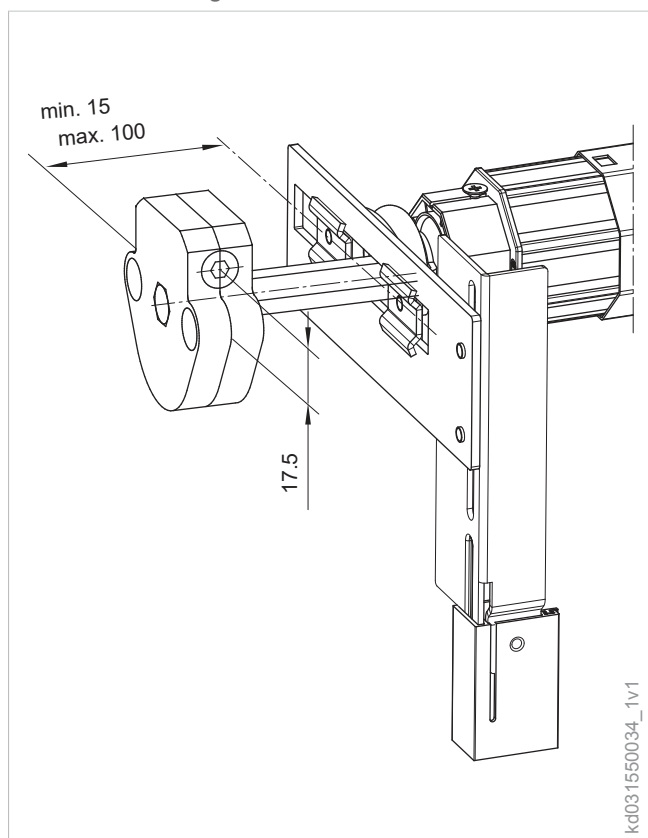
Standards

## Drive details, crank

### Crank, with infinitely variable extendible gear

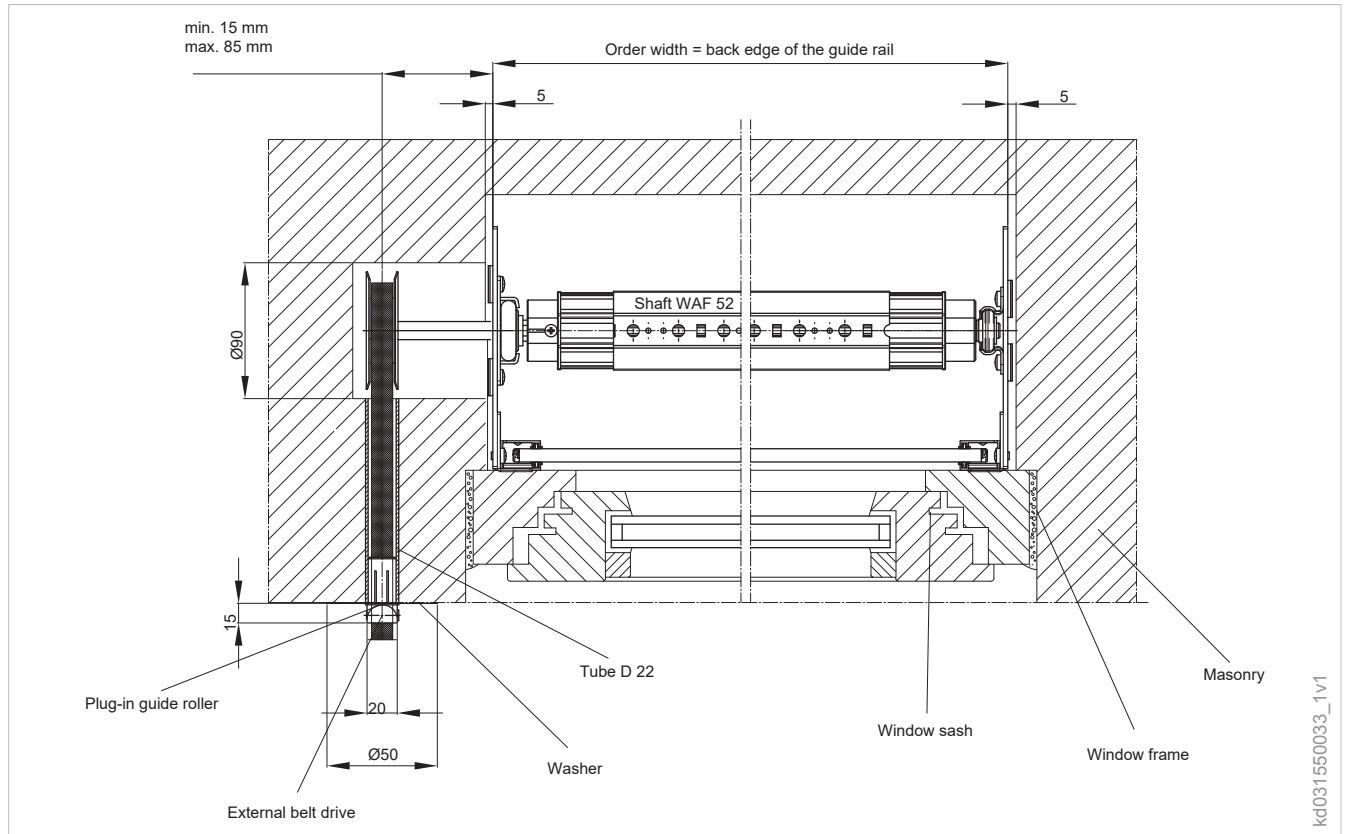


### Detail of extendible gear

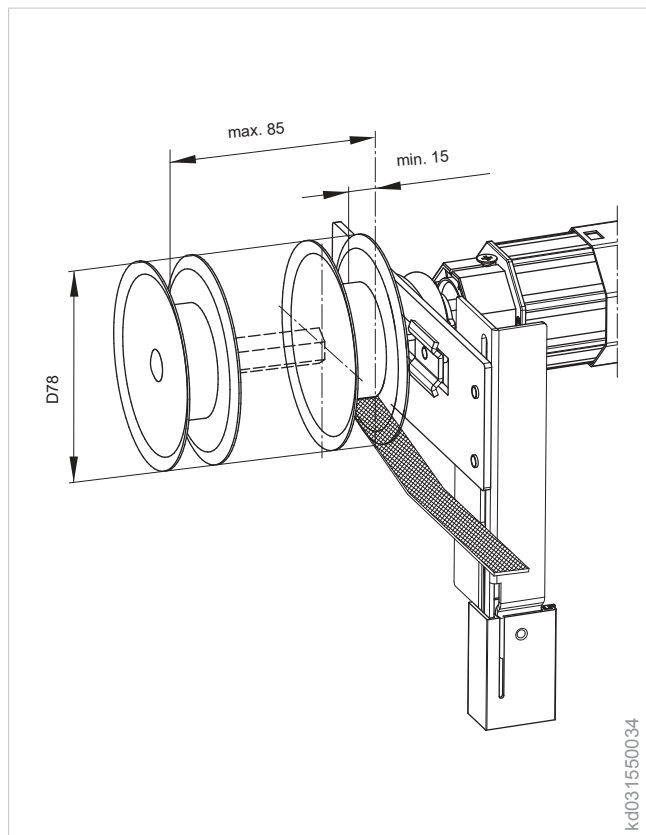


## Drive details, belt

### Belt with infinitely variable extendible belt disc



### Detail of extendible belt disc



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Group units

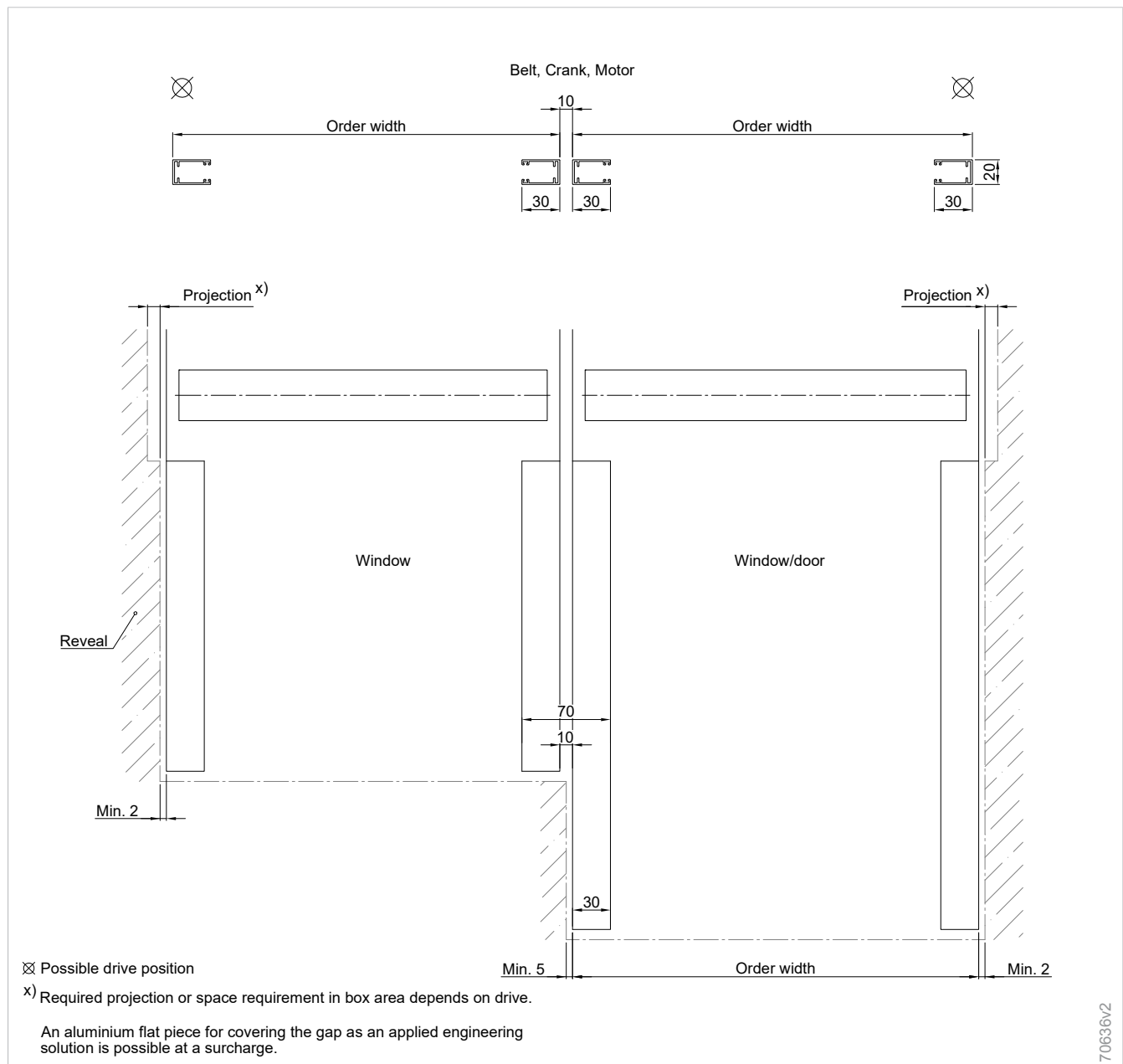
Multi-part roller shutters in a shaft with individual running roller shutter curtains. The individual roller shutter curtains can be either coupled or installed with a single drive for units of the same height. For roller shutter curtains of different heights, coupling is not possible, meaning that only single drives are possible.

- **Order data:** Always seen from inside, from left to right
- **Beginning and end position:** Please indicate on order form

**Coupling of roller shutter curtains:** Max. 2 roller shutter curtains can be coupled, taking the max. drive areas into consideration.

Aluminium flat material for covering the gap as an applied engineering solution is possible at a surcharge.

### Order dimension determination, group unit



Please take the 5 mm console protrusion to the back edge of the guide rails into account

## Further information

Use our free planning programme to plan your sun protection systems  
<https://sonnenschutzplaner.com/>



Configure and plan your product with myWAREMA  
<https://my.warema.com>



TechDataPLUS External shaft roller shutters  
<https://docs.warema.com/1.1315.1>







## Shaft roller shutters

### Roller shutters for on-site lintel boxes

#### Practical

Roller shutter components for construction with existing lintel boxes. The scope of the delivery of roller shutter components can be adapted depending on the technical equipment of the existing lintel box.

#### Individual

Powder-coated aluminium parts can be supplied in many colours. For roller shutter curtains, there are numerous colours from the WAREMA colour chart to choose from.



#### Construction limit values

|                      |                   |
|----------------------|-------------------|
| Maximum order width  | 4500 mm           |
| Maximum order height | 3500 mm           |
| Maximum order area   | 10 m <sup>2</sup> |



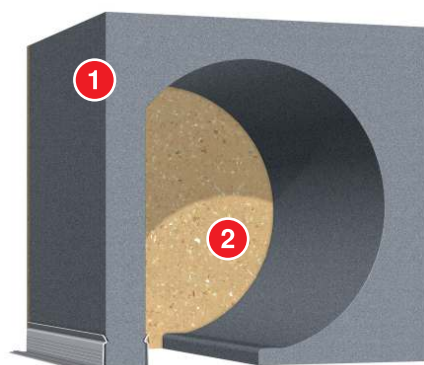
#### Product characteristics

- Delivery of individual components
- Installation in existing on-site lintel boxes
- different configuration levels available

# Components for lintel boxes without on-site assembled bearing

## Components

Lintel box without bearing installed on site



1 Pre-installed lintel box      2 Without pre-installed bearings

## Bearing

### Non-drive end components, NDE set

#### Includes:

- Art. no. 542022, screw-on bearing seat
- Art. no. 212005, ball bearing, Ø 12 mm
- Art. no. 555008, shaft core for shaft size 60

See following page for figure.

### Drive end components for motor operation, drive end motor set

#### Includes:

- Somfy motor LT50, motor power according to the size of the roller shutter curtain
- Art. no. 617241, universal bearing with locking ring
- Art. no. 617269, motor line 1.2 m
- Art. no. 617033, adapter LT50 for shaft size 60
- Art. no. 617225, tappet LT50 for shaft size 60

See following page for figure.

## Bearing, optional

### Components for the drive end with crank operation, drive end crank set

#### Includes:

- Special part: Spacer tube incl. fixing material for fixing the gear into place
- Art. no. 555160, shaft core for drive end (for shaft size 60)
- Art. no. 526263, gear right or
- Art. no. 526264, gear left

See following page for figure.

### Drive end components for belt operation, drive end belt set

#### Includes:

- Art. no. 542022, screw-on bearing seat
- Art. no. 212005, ball bearing, Ø 12 mm
- Art. no. 555009, shaft core for drive end (for shaft size 60)
- Art. no. 527006, belt disc Ø 170 mm (for shaft size 60)

See following page for figure.

### Drive end components with step-up gear for belt, drive end belt step-up gear set

#### Includes:

- Art. no. 557036, screw-on bearing seat 21 mm, angulated
- Art. no. 555003, shaft core for drive end (for shaft size 60)
- Art. no. 526065, subassembly for step-up gear for belt disc Ø170 mm (for shaft size 60)

See following page for figure.

## Shaft

### Shaft size 60

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 60 mm     |

## Shaft, optional

### Shaft size 70

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 70 mm     |

## Roller shutter curtain

- A 36
- A 44
- A 53
- A 56
- K 36
- K 52
- K 55

Roller shutter curtain, optional:

- S 37

+ see "Roller shutter curtain", Page 274

## Bottom rail

- Flat end rail

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

## Inspection cover, optional

|                 |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Material, notes | Inspection cover, foam filled, 32 mm thick with lateral plaster pieces, each 40 mm long. White coating on both sides. |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|

+ see "Components for room-side inspection (optional)", Page 227

## Guide variants

- Rail guidance

## Guide rail

- Without guide rails

Guide rail, optional:

- Guide rail 20-19
- Guide rail 25-19
- Guide rail 28-19
- Guide rail 30-19
- Guide rail 30-25
- Guide rail 30-28
- Guide rail 40-28
- Guide rail 60-28
- Guide rail 38-41
- Guide rail 60-75

+ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

## Basic motor

- LT motor

## Crank

- Crank (for on-site lintel boxes)

## Gear

- Crank type 2, bevel gear

## Belt

- Belt 23 mm (for on-site lintel boxes)

Belt, optional:

- Step-up gear, belt 23 mm

+ see "Drive variants", Page 329

## Colours

- Colours for shutter profiles
- WAREMA Colour World
- Anodised C0

Colours, optional:

- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

+ see "Colours", Page 12

## Product characteristics

**For "Roller shutters for on-site lintel boxes" there is a delivery of individual components.**

**Available are configuration sets for basic equipment or re-utilisation of existing on-site lintel boxes.**

**Included are:**

- Roller shutter curtain including shaft (locked), pressure springs and flat end rails
- The driver for each drive type with or without room side components (see description of components and "additional product information")
- Components for bearing
  - the **non**-drive end
  - the drive end
  - For each existing piece of equipment of the on-site lintel box there are sets for selection with various components for the bearing of the shaft (for scope of delivery, see description under components/bearing or components/bearing, optional).

**optionally available:**

- Guide rails
- Two-piece 90°-profile end rail
- Inspection cover for the room interior
- Room side drive components (in the case that they are not included in the scope of delivery of the corresponding drive)

## Notes

**Proceed as follows when ordering:**

- Select a set for the **non**-drive end (corresponding to the equipment of the existing on-site lintel boxes).
- Select for each desired drive type a set for the **drive end** as well as, if applicable, room side parts (see additional product information).
- Select the additional parts, such as roller shutter curtain incl. end rail, steel shaft octagonal SW60 mm, pressure springs.
- Optionally, select guide rails and inspection cover.

Non-drive end set, non-drive end components



Drive end motor set, drive end components, motor



Drive end crank set, drive end components, belt



Drive end belt set, drive end components, belt



Drive end step-up gear belt set, drive end components, belt



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Construction limit values

| Configuration variants        | Minimum order width | Maximum order width | Maximum order height | Maximum order area | Maximum order area of group unit |
|-------------------------------|---------------------|---------------------|----------------------|--------------------|----------------------------------|
| <b>Roller shutter curtain</b> |                     |                     |                      |                    |                                  |
| A 36                          |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 25,3 m <sup>2</sup>              |
| A 44                          |                     | 3500 mm             | 3500 mm              | 10 m <sup>2</sup>  | 22,6 m <sup>2</sup>              |
| A 53                          |                     | 3800 mm             | 3500 mm              | 8 m <sup>2</sup>   | 21,2 m <sup>2</sup>              |
| A 56                          |                     | 4500 mm             | 3500 mm              | 10 m <sup>2</sup>  | 13,2 m <sup>2</sup>              |
| S 37                          |                     | 3000 mm             | 3500 mm              | 7 m <sup>2</sup>   | 10,5 m <sup>2</sup>              |
| K 36                          |                     | 2000 mm             | 3000 mm              | 3,2 m <sup>2</sup> | 22,7 m <sup>2</sup>              |
| K 52                          |                     | 2500 mm             | 3500 mm              | 4,5 m <sup>2</sup> | 14,3 m <sup>2</sup>              |
| K 55                          |                     | 3300 mm             | 3500 mm              | 6 m <sup>2</sup>   | 14,3 m <sup>2</sup>              |
| <b>Drive variants</b>         |                     |                     |                      |                    |                                  |
| Tubular motor                 | 800 mm              |                     |                      |                    |                                  |
| Radio tubular motor           | 800 mm              |                     |                      |                    |                                  |
| Crank / Belt                  | 500 mm              |                     |                      |                    |                                  |

## Maximum order area per operating class

| Configuration variants                         | Operating classes   |                    |                    |
|------------------------------------------------|---------------------|--------------------|--------------------|
|                                                | Design-related      | Operating class 1  | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                     |                    |                    |
| A 36 + Motor                                   | 25,3 m <sup>2</sup> |                    |                    |
| A 44 + Motor                                   | 22,6 m <sup>2</sup> |                    |                    |
| A 53 + Motor                                   | 21,2 m <sup>2</sup> |                    |                    |
| A 56 + Motor                                   | 13,2 m <sup>2</sup> |                    |                    |
| S 37 + Motor                                   | 10,5 m <sup>2</sup> |                    |                    |
| K 36 + Motor                                   | 22,7 m <sup>2</sup> |                    |                    |
| K 52 + Motor                                   | 14,3 m <sup>2</sup> |                    |                    |
| K 55 + Motor                                   | 14,3 m <sup>2</sup> |                    |                    |
| A 36 + Crank (for on-site lintel boxes)        | 8 m <sup>2</sup>    | 8 m <sup>2</sup>   | 5,5 m <sup>2</sup> |
| A 44 + Crank (for on-site lintel boxes)        | 7,5 m <sup>2</sup>  | 7,5 m <sup>2</sup> | 5 m <sup>2</sup>   |
| A 53 + Crank (for on-site lintel boxes)        | 7 m <sup>2</sup>    | 7 m <sup>2</sup>   | 4,7 m <sup>2</sup> |
| A 56 + Crank (for on-site lintel boxes)        | 4,3 m <sup>2</sup>  | 4,3 m <sup>2</sup> | 3 m <sup>2</sup>   |
| S 37 + Crank (for on-site lintel boxes)        | 2,9 m <sup>2</sup>  | 2,9 m <sup>2</sup> | 2 m <sup>2</sup>   |
| K 36 + Crank (for on-site lintel boxes)        | 7,5 m <sup>2</sup>  | 7,5 m <sup>2</sup> | 5 m <sup>2</sup>   |
| K 52 + Crank (for on-site lintel boxes)        | 5,4 m <sup>2</sup>  | 5,4 m <sup>2</sup> | 3,7 m <sup>2</sup> |
| K 55 + Crank (for on-site lintel boxes)        | 5,4 m <sup>2</sup>  | 5,4 m <sup>2</sup> | 3,7 m <sup>2</sup> |
| A 36 + Belt 23 mm (for on-site lintel boxes)   | 6,8 m <sup>2</sup>  | 3,7 m <sup>2</sup> | 2 m <sup>2</sup>   |
| A 44 + Belt 23 mm (for on-site lintel boxes)   | 6,2 m <sup>2</sup>  | 3,4 m <sup>2</sup> | 1,9 m <sup>2</sup> |
| A 53 + Belt 23 mm (for on-site lintel boxes)   | 5,8 m <sup>2</sup>  | 3,2 m <sup>2</sup> | 1,8 m <sup>2</sup> |
| A 56 + Belt 23 mm (for on-site lintel boxes)   | 3,6 m <sup>2</sup>  | 2 m <sup>2</sup>   | 1,1 m <sup>2</sup> |
| S 37 + Belt 23 mm (for on-site lintel boxes)   | 2,4 m <sup>2</sup>  | 1,3 m <sup>2</sup> | 0,7 m <sup>2</sup> |
| K 36 + Belt 23 mm (for on-site lintel boxes)   | 6,2 m <sup>2</sup>  | 3,4 m <sup>2</sup> | 1,9 m <sup>2</sup> |
| K 52 + Belt 23 mm (for on-site lintel boxes)   | 4,5 m <sup>2</sup>  | 2,5 m <sup>2</sup> | 1,4 m <sup>2</sup> |
| K 55 + Belt 23 mm (for on-site lintel boxes)   | 4,5 m <sup>2</sup>  | 2,5 m <sup>2</sup> | 1,4 m <sup>2</sup> |
| A 36 + Step-up gear, belt 23 mm                | 14,3 m <sup>2</sup> | 7,5 m <sup>2</sup> | 3,8 m <sup>2</sup> |
| A 44 + Step-up gear, belt 23 mm                | 13,3 m <sup>2</sup> | 7 m <sup>2</sup>   | 3,5 m <sup>2</sup> |
| A 53 + Step-up gear, belt 23 mm                | 12,5 m <sup>2</sup> | 6,5 m <sup>2</sup> | 3,3 m <sup>2</sup> |

| Configuration variants          | Operating classes   |                    |                    |
|---------------------------------|---------------------|--------------------|--------------------|
|                                 | Design-related      | Operating class 1  | Operating class 2  |
| A 56 + Step-up gear, belt 23 mm | 7,7 m <sup>2</sup>  | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| S 37 + Step-up gear, belt 23 mm | 5,2 m <sup>2</sup>  | 2,7 m <sup>2</sup> | 1,4 m <sup>2</sup> |
| K 36 + Step-up gear, belt 23 mm | 13,3 m <sup>2</sup> | 7 m <sup>2</sup>   | 3,5 m <sup>2</sup> |
| K 52 + Step-up gear, belt 23 mm | 9,6 m <sup>2</sup>  | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 55 + Step-up gear, belt 23 mm | 9,6 m <sup>2</sup>  | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |

The previously given values refer to the maximum area that can be operated with the respective drive in the respective operating class.

Generally, the maximum order area must be considered for each roller shutter curtain.

## Maximum order width per wind resistance class

| Configuration variants        | Wind resistance class |         |         |         |         |         |         |
|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|
|                               | 0                     | 1       | 2       | 3       | 4       | 5       | 6       |
| <b>Roller shutter curtain</b> |                       |         |         |         |         |         |         |
| A 36                          | 3000 mm               | 2780 mm | 2705 mm | 2560 mm | 2265 mm | 1825 mm | 1500 mm |
| A 44                          | 3500 mm               | 3295 mm | 3200 mm | 3010 mm | 2625 mm | 2055 mm | 1600 mm |
| A 53                          | 3800 mm               | 3635 mm | 3545 mm | 3370 mm | 3020 mm | 2490 mm | 1790 mm |
| A 56                          | 4500 mm               | 3900 mm | 3775 mm | 3535 mm | 3050 mm | 2330 mm | 1360 mm |
| S 37                          |                       |         |         | 3000 mm | 2790 mm | 2375 mm | 1820 mm |
| K 36                          | 2000 mm               | 1750 mm | 1600 mm | 1400 mm | 1200 mm | 1000 mm | 900 mm  |
| K 52                          | 2500 mm               | 2355 mm | 2285 mm | 2140 mm | 1855 mm | 1425 mm | 850 mm  |
| K 55                          | 3300 mm               | 3125 mm | 2825 mm | 2220 mm | 1015 mm |         |         |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

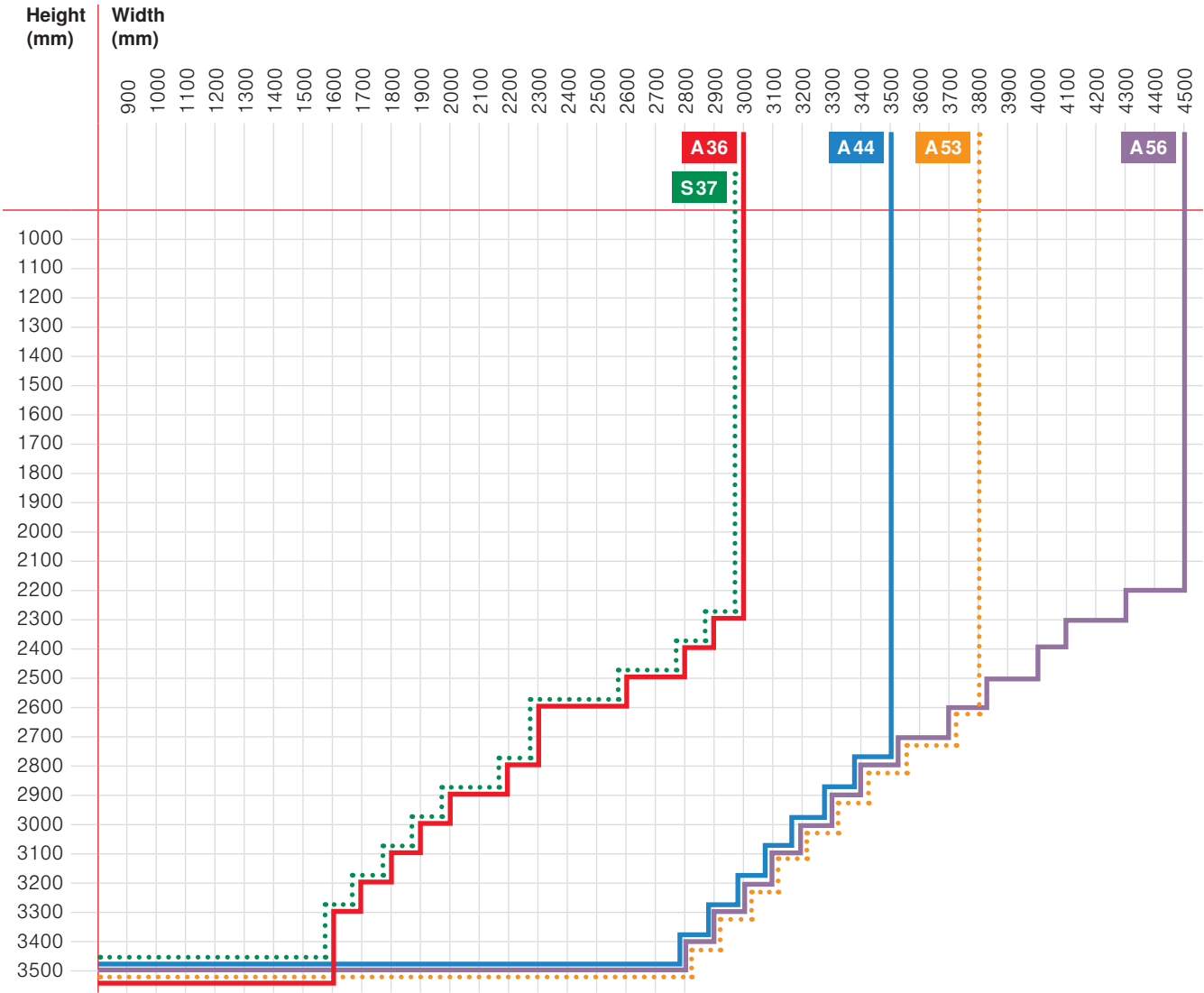
Supplementary accessories

Components

Drive variants

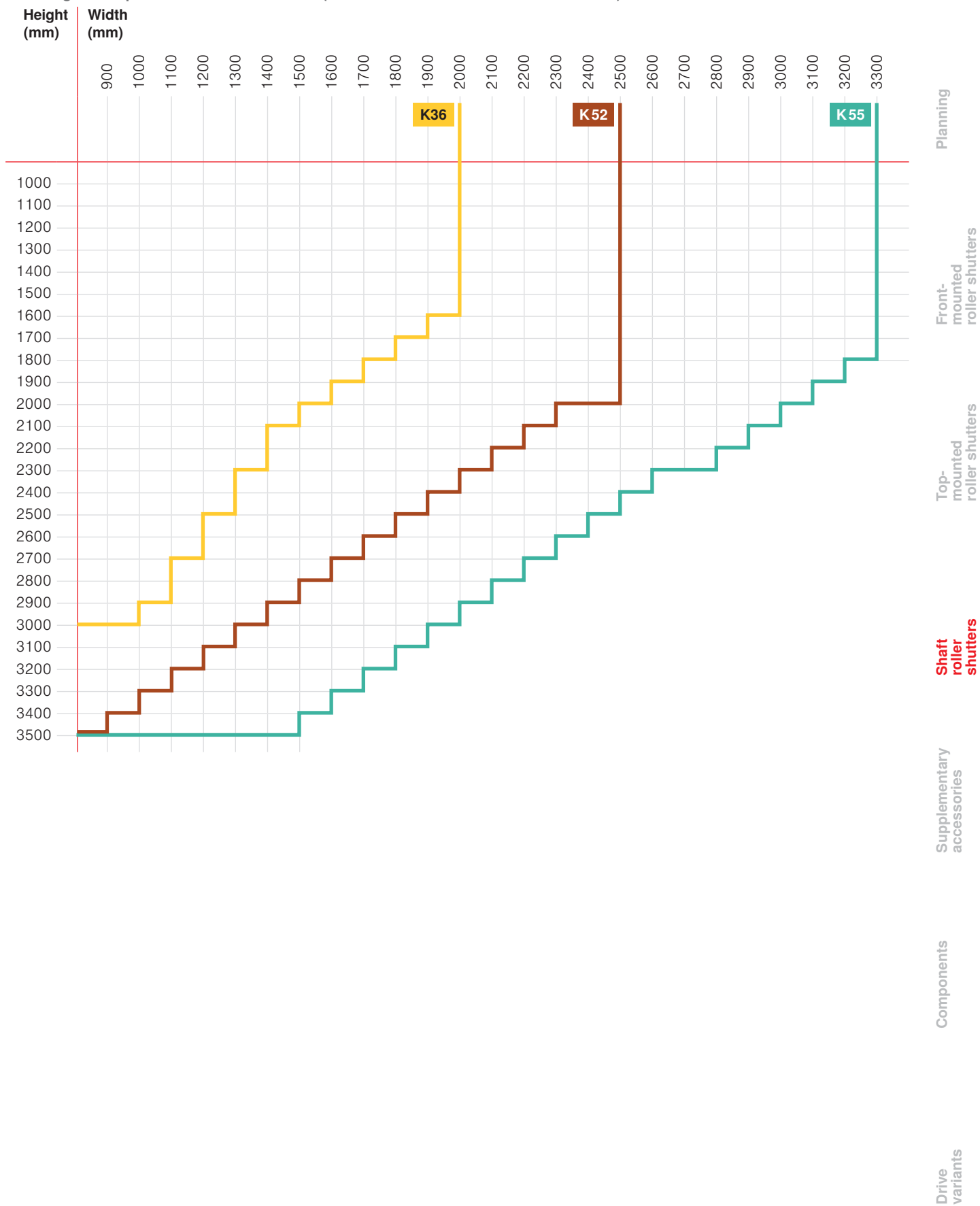
Standards

Area diagram for aluminium roller shutter curtain (maximum dimensions for individual areas)





Area diagram for plastic roller shutter curtain (maximum dimensions for individual areas)

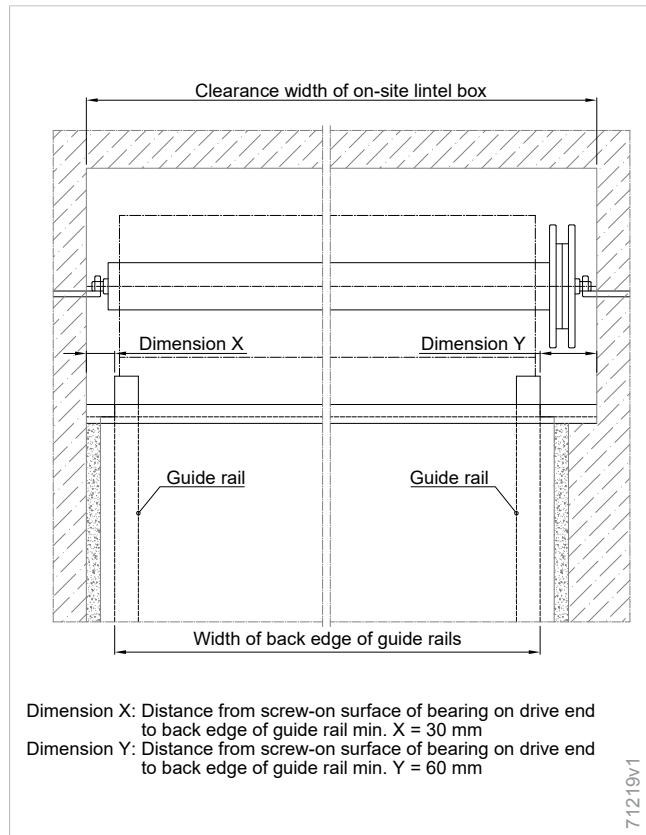




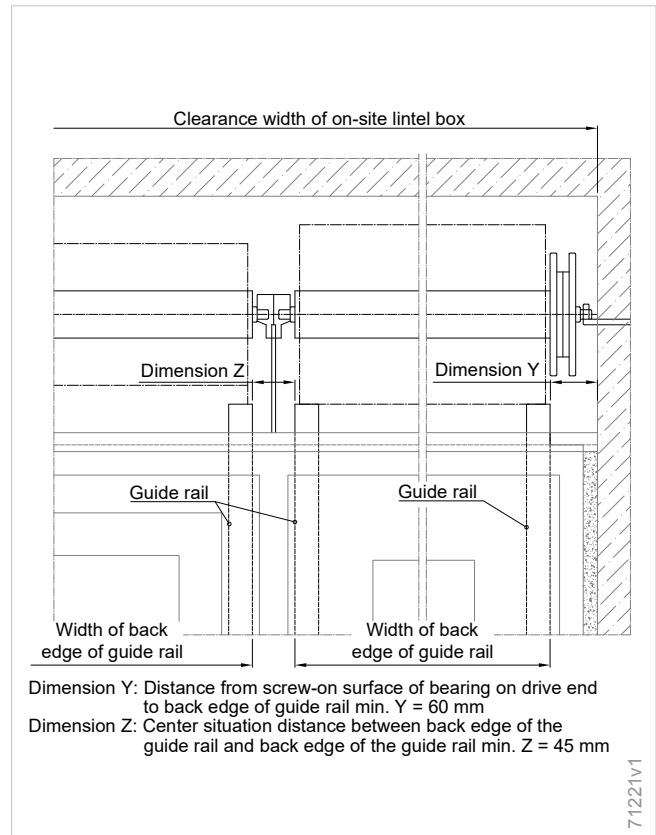
## Dimension determination

- Note the deduction measurement in accordance with the drawing
- Operation side seen from inside

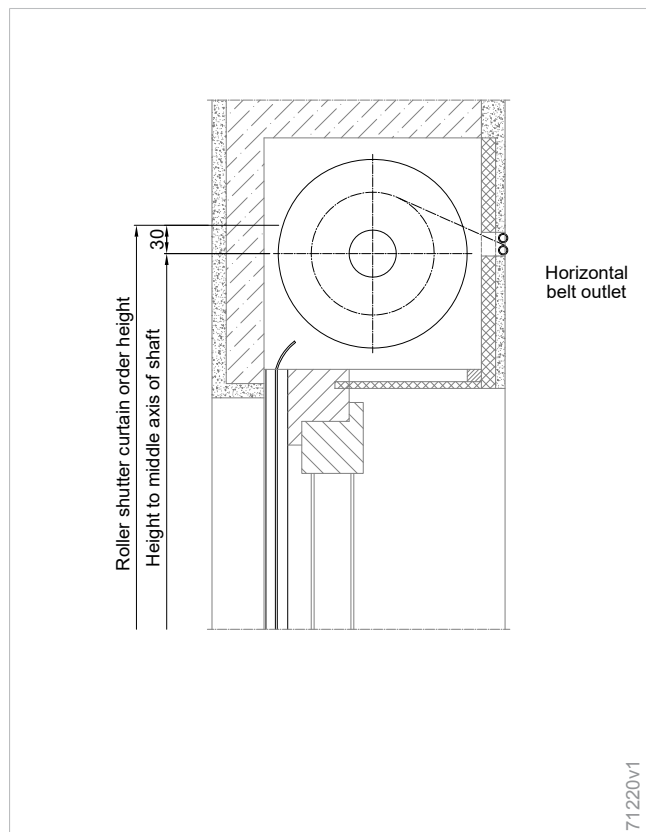
### Order width determination for individual units



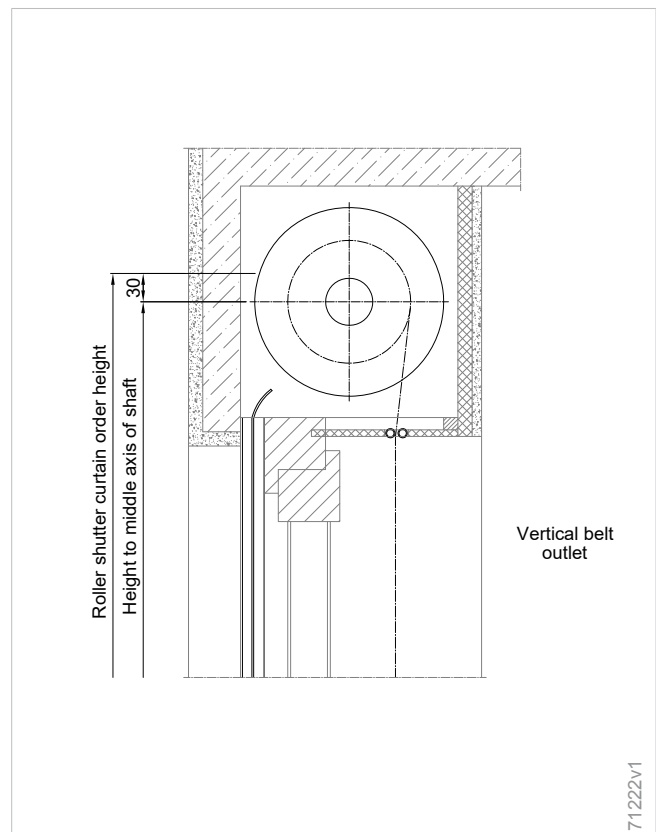
### Order width determination for door/window combinations



### Order height determination, situation with horizontal belt outlet



### Order height determination, situation with vertical belt outlet



## Bale diameter

| Configuration variants                | Order height |     |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------------------|--------------|-----|------|------|------|------|------|------|------|------|------|------|------|
|                                       | 500          | 750 | 1000 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 | 2750 | 3000 | 3250 | 3500 |
| <b>Roller shutter curtain + Shaft</b> |              |     |      |      |      |      |      |      |      |      |      |      |      |
| A 36 + Shaft size 60                  | 110          | 115 | 125  | 125  | 135  | 145  | 150  | 160  | 175  | 175  | 185  | 200  | 200  |
| A 44 + Shaft size 60                  | 110          | 120 | 130  | 135  | 150  | 160  | 170  | 170  | 180  | 190  | 200  | 200  | 205  |
| A 53 + Shaft size 60                  | 125          | 130 | 145  | 155  | 155  | 170  | 175  | 185  | 190  | 200  | 205  | 215  | 215  |
| A 56 + Shaft size 60                  | 129          | 150 | 155  | 170  | 190  | 190  | 210  | 215  | 225  | 240  | 240  | 255  | 255  |
| S 37 + Shaft size 60                  | 115          | 120 | 130  | 140  | 150  | 155  | 166  | 170  | 180  | 185  | 190  | 205  | 225  |
| K 36 + Shaft size 60                  | 100          | 110 | 125  | 130  | 130  | 145  | 155  | 155  | 165  | 170  | 170  |      |      |
| K 52 + Shaft size 60                  | 120          | 130 | 130  | 140  | 165  | 165  | 180  | 185  | 200  | 200  | 215  | 215  | 225  |
| K 55 + Shaft size 60                  | 135          | 135 | 140  | 170  | 170  | 185  | 185  | 195  | 210  | 210  | 225  | 235  | 235  |
| A 56 + Shaft size 70                  | 140          | 160 | 180  | 180  | 200  | 200  | 220  | 220  | 235  | 240  | 255  | 270  | 275  |
| S 37 + Shaft size 70                  | 110          | 125 | 140  | 145  | 155  | 165  | 170  | 180  | 185  | 195  | 200  | 210  | 230  |
| K 55 + Shaft size 70                  | 120          | 140 | 155  | 160  | 170  | 200  | 200  | 210  | 210  | 220  | 230  | 230  | 255  |
| A 36 + Shaft size 40                  | 90           | 100 | 110  | 115  | 125  | 140  | 150  | 150  | 160  | 160  | 170  | 195  | 215  |
| K 36 + Shaft size 40                  | 85           | 100 | 110  | 115  | 125  | 135  | 145  | 145  | 160  | 165  | 175  |      |      |

All miniprofiles are optimised for the shaft SW 52. Impairments to the running behaviour of the roller shutter curtain are possible in connection with shafts that have smaller widths across flats.

## Additional product information

### Fields of application for guide rails per shutter profile

| Guide rail       | Profile A 36 | Profile A 44 | Profile A 53 | Profile A 56 | Profile K 36 | Profile K 52 | Profile K 55 | Profile S 37 |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Guide rail 20-19 |              |              |              |              |              | 2000 mm      | 2000 mm      |              |
| Guide rail 25-19 |              |              |              |              |              | 2000 mm      | 2000 mm      |              |
| Guide rail 28-19 |              |              |              |              |              | 2500 mm      | 3000 mm      |              |
| Guide rail 30-19 | 3000 mm      | 3000 mm      |              |              | 2000 mm      |              |              |              |
| Guide rail 30-25 | 3000 mm      | 3000 mm      | 3000 mm      |              | 2000 mm      | 2500 mm      |              | 3000 mm      |
| Guide rail 30-28 |              |              | 3000 mm      | 3000 mm      |              | 2500 mm      | 3000 mm      |              |
| Guide rail 40-28 |              |              | 3800 mm      | 4000 mm      |              | 2500 mm      | 3300 mm      |              |
| Guide rail 60-28 |              |              | 3800 mm      | 4500 mm      |              | 2500 mm      | 3300 mm      |              |
| Guide rail 38-41 | 3000 mm      | 3000 mm      | 3000 mm      |              | 2000 mm      | 2500 mm      | 3000 mm      | 3000 mm      |
| Guide rail 60-75 | 3000 mm      | 3000 mm      | 3500 mm      |              | 2000 mm      | 2500 mm      |              | 3000 mm      |

These values apply when the maximum widths in mm in accordance with DIN 18073 are taken into account.

## Room-side components for crank

- For crank operation, we assume that the room-side components are always required and that they are generally replaced during refurbishment.
- The room-side components are therefore already included in the basic price.

| Designation of set | Set contents                                                                     | Article number |
|--------------------|----------------------------------------------------------------------------------|----------------|
| Crank operation    | Joint plate, horizontal outlet up to 45°, bearing pin 6 mm square, length 300 mm | 525140         |
|                    | Crank rod C0 anodised                                                            | 115027         |
|                    | Collapsible crank C0 anodised                                                    | 521018         |
|                    | Crank holder, PVC, white                                                         | 521053         |

Further components can be obtained via [myWAREMA.com](http://myWAREMA.com).

## Room-side components for belt (optional)

- For belt operation/step-up gear, two different optional sets of room-side components are available.
- Depending on the equipment available on-site, a suitable set can be selected.
- The room-side parts are not included in the basic price for the belt.

| Designation of set                       | Set contents                                                                                  | Article number |
|------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|
| Belt set AP, surface mounted model       | Plastic belt guiding roller with brush seal                                                   | 548061         |
|                                          | Pivotable belt winder, white, screw-on, incl. 5.3 m belt (23 mm, grey)                        | 528026         |
| Belt set EP, built-in model              | Plastic belt guiding roller with brush seal                                                   | 548061         |
|                                          | Belt winder, flush-mounted, hole spacing 160 mm                                               | 528039         |
|                                          | Cover plate, PVC, white                                                                       | 528041         |
|                                          | Screws for cover plate, 2 pieces                                                              | 728004         |
|                                          | Belt 23 mm, grey (belt length determined according to the size of the roller shutter curtain) | 404010         |
| Additionally available                   | Wall housing, hole spacing 160 mm                                                             | 528065         |
| Operation using step-up gear for belt    |                                                                                               |                |
| Belt set EP step-up gear, built-in model | Plastic belt guiding roller with brush seal                                                   | 548061         |
|                                          | Belt winder, flush-mounted, hole spacing 186 mm, incl. PVC cover plate, white                 | 528023         |
|                                          | Belt 23 mm, grey (belt length determined according to the size of the roller shutter curtain) | 404010         |
| Additionally available                   | Wall housing, hole spacing 186 mm                                                             | 528036         |

Further components can be obtained via [myWAREMA.com](http://myWAREMA.com).

## Shaft and accessories

| Designation                  | Article number | Description                                                                       |
|------------------------------|----------------|-----------------------------------------------------------------------------------|
| Steel shaft                  | 206062         | Octagonal, zinc-coated, SW60 mm, 0.6 mm thick                                     |
| Telescopic shaft             | 206093         | Steel shaft SW60, octagonal, zinc-coated, for length compensation, 200 mm sliding |
| Fixed shaft connector        | 2002917        | Two parts for shaft SW60 (please order the following mounting ring)               |
| Mounting ring for shaft SW60 | 2017453        | Two mounting rings are required for each fixed shaft connector                    |

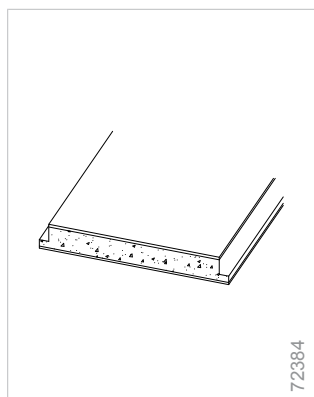
Further components can be obtained via [myWAREMA.com](http://myWAREMA.com).

## Components for room-side inspection (optional)

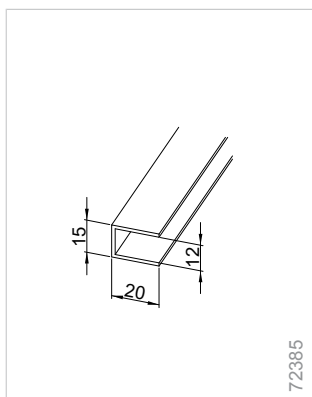
Components for maintenance work are not included as standard but are optionally available:

- **Inspection cover made from PU foam**
  - For room-side inspection
  - Foam filled, 32 mm thick with lateral plaster pieces, each 40 mm long, white coated on both sides
  - For other inspection covers see the Top-mounted roller shutters/ Renovation roller shutters product chapter
- **Plug-in rail 20-15:** Aluminium, plain, for fixing inspection cover to window when there is no groove
- **Aluminium unwind strip:** For external inspection access, powder-coated in accordance with the WAREMA Colour World

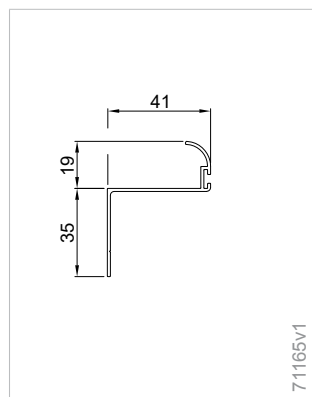
Inspection cover made from PU foam



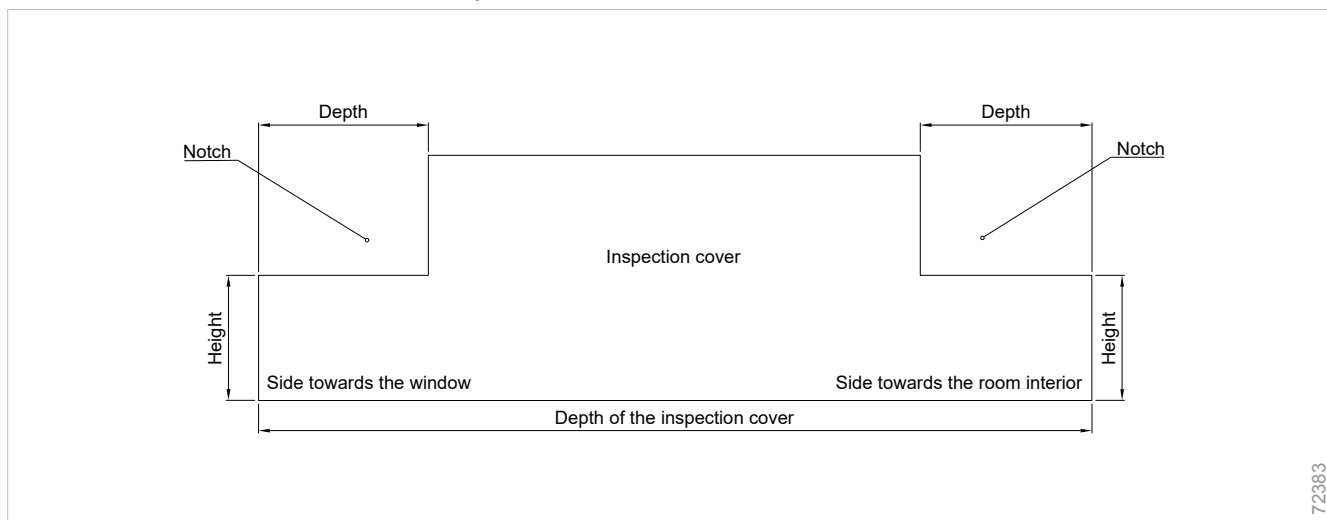
Plug-in rail 20-15



Unwind strip for on-site lintel boxes with external revision



Sketch for order dimension determination: Inspection cover made from PU foam



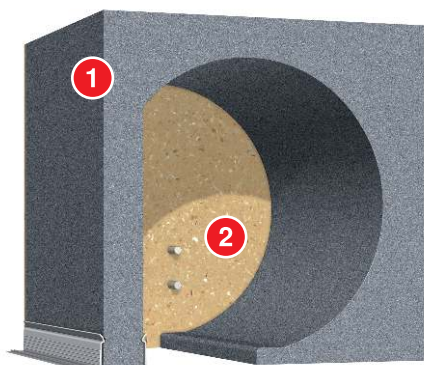
Required order data for an inspection cover made from PU foam:

- Quantity
- Order width including plaster pieces (per 40 mm)
- Window notch depth
- Notch side towards the room interior with depth and height
- Depth of inspection cover

# Components for lintel boxes with on-site assembled double studs

## Components

Lintel box with double stud installed on site



1 Pre-installed lintel box 2 On-site double bolts

### Bearing

#### Non-drive end components, NDE set

##### Includes:

- Art. no. 212015, screw-on bearing, angulated
- Art. no. 212005, ball bearing, Ø 12 mm
- Art. no. 555008, shaft core for shaft size 60

See following page for figure.

#### Drive end components for motor operation, drive end motor set

##### Includes:

- Somfy motor LT50, motor power according to the size of the roller shutter curtain
- Art. no. 617237, bearing with locking ring
- Art. no. 617269, motor line 1.2 m
- Art. no. 617033, adapter LT50 for shaft size 60
- Art. no. 617225, tappet LT50 for shaft size 60

See following page for figure.

### Bearing, optional

#### Components for the drive end with crank operation, drive end crank set

##### Includes:

- Special part: Spacer tube incl. fixing material for fixing the gear into place
- Art. no. 555160, shaft core for drive end (for shaft size 60)
- Art. no. 526263, gear right or
- Art. no. 526264, gear left

See following page for figure.

#### Drive end components for belt operation, drive end belt set

Delivery of individual components

- Shaft incl. roller shutter curtain (locked), pressure springs and end rail
- Comprised of bearing for fixing the shaft, depending on the lintel box equipment installed on site (different extension stages to choose from)
- Incl. drive, depending on desired equipment, but without room-side components

Optionally available:

- Guide rails
- Inspection cover
- Room-side drive components

#### Drive end components with step-up gear for belt, drive end belt step-up gear set

##### Includes:

- Art. no. 557036, screw-on bearing seat 21 mm, angulated
- Art. no. 555003, shaft core for drive end (for shaft size 60)
- Art. no. 526065, subassembly for step-up gear for belt disc Ø170 mm (for shaft size 60)

See following page for figure.

### Shaft

#### Shaft size 60

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 60 mm     |

### Shaft, optional

#### Shaft size 70

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 70 mm     |

### Roller shutter curtain

- A 36
- A 44
- A 53
- A 56
- K 36
- K 52
- K 55

Roller shutter curtain, optional:

- S 37

+ see "Roller shutter curtain", Page 274

## End rail

- Flat end rail

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

## Inspection cover, optional

Material, notes      Inspection cover, foam filled, 32 mm thick with lateral plaster pieces, each 40 mm long. White coating on both sides.

+ see "Components for room-side inspection (optional)", Page 227

## Guide variants

- Rail guidance

## Guide rail

- Without guide rails

Guide rail, optional:

- Guide rail 20-19
- Guide rail 25-19
- Guide rail 28-19
- Guide rail 30-19
- Guide rail 30-25
- Guide rail 30-28
- Guide rail 40-28
- Guide rail 60-28
- Guide rail 38-41
- Guide rail 60-75

+ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

## Basic motor

- LT motor

## Crank

- Crank (for on-site lintel boxes)

## Gear

- Crank type 2, bevel gear

## Belt

- Belt 23 mm (for on-site lintel boxes)

Belt, optional:

- Step-up gear, belt 23 mm

+ see "Drive variants", Page 329

## Colours

- Colours for shutter profiles
- WAREMA Colour World
- Anodised C0

Colours, optional:

- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

+ see "Colours", Page 12

## Product characteristics

**For "Roller shutters for on-site lintel boxes" there is a delivery of individual components.**

**Available are configuration sets for basic equipment or re-utilisation of existing on-site lintel boxes.**

**Included are:**

- Roller shutter curtain including shaft (locked), pressure springs and flat end rails
- The driver for each drive type with or without room side components (see description of components und "additional product information")
- Components for bearing
  - the **non**-drive end
  - the drive end
  - For each existing piece of equipment of the on-site lintel box there are sets for selection with various components for the bearing of the shaft (for scope of delivery, see description under components/bearing or components/bearing, optional).

**optionally available:**

- Guide rails
- Two-piece 90°-profile end rail
- Inspection cover for the room interior
- Room side drive components (in the case that they are not included in the scope of delivery of the corresponding drive)

## Notes

**Proceed as follows when ordering:**

- Select a set for the **non**-drive end (corresponding to the equipment of the existing on-site lintel boxes).
- Select for each desired drive type a set for the **drive end** as well as, if applicable, room side parts (see additional product information).
- Select the additional parts, such as roller shutter curtain incl. end rail, steel shaft octagonal SW60 mm, pressure springs.
- Optionally, select guide rails and inspection cover.

**Non-drive end set, non-drive end components**



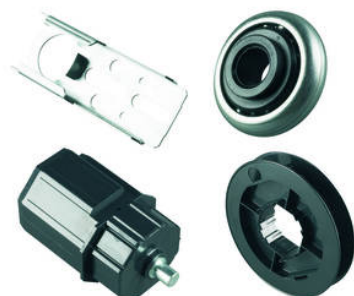
**Drive end motor set, drive end components, motor**



**Drive end crank set, drive end components, belt**



**Drive end belt set, drive end components, belt**



**Drive end step-up gear belt set, drive end components, belt**



**Construction limit values**

+ see "Construction limit values", Page 220

**Dimension determination**

+ see "Dimension determination", Page 224

**Additional product information**

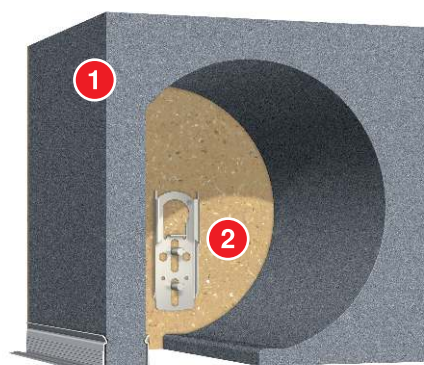
+ see "Additional product information", Page 225



# Components for lintel boxes with on-site assembled bearing

## Components

Lintel box with bearing installed on site



1 On-site lintel box

2 Bearing installed on site

## Bearing

### Non-drive end components, NDE set

#### Includes:

- Art. no. 555008, shaft core for shaft size 60

See following page for figure.

### Drive end components for motor operation, drive end motor set

#### Includes:

- Somfy motor LT50, motor power according to the size of the roller shutter curtain
- Art. no. 617269, motor line 1.2 m
- Art. no. 617033, adapter LT50 for shaft size 60
- Art. no. 617225, tappet LT50 for shaft size 60

See following page for figure.

## Bearing, optional

### Components for the drive end with crank operation, drive end crank set

#### Includes:

- Special part: Spacer tube incl. fixing material for fixing the gear into place
- Art. no. 555160, shaft core for drive end (for shaft size 60)
- Art. no. 526263, gear right or
- Art. no. 526264, gear left

See following page for figure.

### Drive end components for belt operation, drive end belt set

#### Includes:

- Art. no. 555009, shaft core for drive end (for shaft size 60)
- Art. no. 527006, belt disc Ø170 mm (for shaft size 60)

See following page for figure.

### Drive end components with step-up gear for belt, drive end belt step-up gear set

#### Includes:

- Art. no. 557036, screw-on bearing seat 21 mm, angulated
- Art. no. 555003, shaft core for drive end (for shaft size 60)
- Art. no. 526065, subassembly for step-up gear for belt disc Ø170 mm (for shaft size 60)

See following page for figure.

## Shaft

### Shaft size 60

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 60 mm     |

### Shaft, optional

### Shaft size 70

|          |           |
|----------|-----------|
| Material | Steel     |
| Surface  | Plain     |
| Profile  | Octagonal |
| Size     | 70 mm     |

## Roller shutter curtain

- A 36
- A 44
- A 53
- A 56
- K 36
- K 52
- K 55

Roller shutter curtain, optional:

- S 37

+ see "Roller shutter curtain", Page 274

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



## End rail

- Flat end rail

End rail, optional:

- Two-piece 90°-profile end rails

+ see "End rails", Page 322

## Inspection cover, optional

|                 |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| Material, notes | Inspection cover, foam filled, 32 mm thick with lateral plaster pieces, each 40 mm long. White coating on both sides. |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|

+ see "Components for room-side inspection (optional)", Page 227

## Guide variants

- Rail guidance

## Guide rail

- Without guide rails

Guide rail, optional:

- Guide rail 20-19
- Guide rail 25-19
- Guide rail 28-19
- Guide rail 30-19
- Guide rail 30-25
- Guide rail 30-28
- Guide rail 40-28
- Guide rail 60-28
- Guide rail 38-41
- Guide rail 60-75

+ see "Guide rails", Page 282

## Drive variants

- Motor
- Crank
- Belt

## Basic motor

- LT motor

## Crank

- Crank (for on-site lintel boxes)

## Gear

- Crank type 2, bevel gear

## Belt

- Belt 23 mm (for on-site lintel boxes)

Belt, optional:

- Step-up gear, belt 23 mm

+ see "Drive variants", Page 329

## Colours

- Colours for shutter profiles
- WAREMA Colour World
- Anodised C0

Colours, optional:

- Anodised C31
- Anodised C32
- Anodised C33
- Anodised C34
- Anodised C35

+ see "Colours", Page 12

## Product characteristics

**For "Roller shutters for on-site lintel boxes" there is a delivery of individual components.**

**Available are configuration sets for basic equipment or re-utilisation of existing on-site lintel boxes.**

**Included are:**

- Roller shutter curtain including shaft (locked), pressure springs and flat end rails
- The driver for each drive type with or without room side components (see description of components and "additional product information")
- Components for bearing
  - the **non**-drive end
  - the drive end
  - For each existing piece of equipment of the on-site lintel box there are sets for selection with various components for the bearing of the shaft (for scope of delivery, see description under components/bearing or components/bearing, optional).

**optionally available:**

- Guide rails
- Two-piece 90°-profile end rail
- Inspection cover for the room interior
- Room side drive components (in the case that they are not included in the scope of delivery of the corresponding drive)

## Notes

**Proceed as follows when ordering:**

- Select a set for the **non**-drive end (corresponding to the equipment of the existing on-site lintel boxes).
- Select for each desired drive type a set for the **drive end** as well as, if applicable, room side parts (see additional product information).
- Select the additional parts, such as roller shutter curtain incl. end rail, steel shaft octagonal SW60 mm, pressure springs.
- Optionally, select guide rails and inspection cover.

Non-drive end set, non-drive end components



Drive end motor set, drive end components, motor



Drive end crank set, drive end components, belt



Drive end belt set, drive end components, belt



Drive end step-up gear belt set, drive end components, belt



## Construction limit values

+ see "Construction limit values", Page 220

## Dimension determination

+ see "Dimension determination", Page 224

## Additional product information

+ see "Additional product information", Page 225

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Further information

Configure and plan your product with myWAREMA  
<https://my.warema.com>



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TechDataPLUS External shaft roller shutters  
<https://docs.warema.com/1.1315.1>



# Contents

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|                                                  |     | Standards                     |



## Supplementary accessories

### Minimax guide rails

#### Slender

Slender, unobtrusive face width - ideal for integration as part of a slender building design.

#### Energy-efficient

Energy saving effect thanks to lateral window frame insulation.

#### Flexible

Insect screens can be installed as roller blinds or swivel frames depending on the desired style and requirements.



#### Can be used for:

- Front-mounted roller shutters V6



#### Construction limit values

|                                   |                     |
|-----------------------------------|---------------------|
| Maximum order width               | 3500 mm             |
| Maximum order height              | 3500 mm             |
| Maximum order area                | 10.0 m <sup>2</sup> |
| Maximum order width of group unit | 6000 mm             |



#### Product characteristics

- Extremely slender visible width
- Ideal as part of a slender building design
- Energy saving properties

## Components

### Standard guide rail compared to Minimax guide rail



- 1 Standard guide rail 55-25      3 Minimax guide rail 37-25, laterally embedded in plaster
- 2 Minimax guide rail 37-25

### Guide variants

- Guide rail 37-25 (Minimax guide rail)

Guide rail, optional:

- Guide rail 37-46 (Minimax guide rail)

+ see "Guide rails", Page 282

### Drive variants

- Basic motor

Drive variant, optional:

- EWFS Radio tubular motor
- WMS Radio tubular motor

+ see "Drive variants", Page 329

### Colours

- WAREMA Colour World

Colours, optional:

- Eloxal

+ see "Colours", Page 12

## Product characteristics

- **Guide rail face width:** 37.5 mm or 22 mm with plaster base type
- **Lateral guide rail offsetting:** Offsetting also possible on standard window frames, no lateral window frame extensions needed.
- **Energy saving properties:** Offset guide rails in conjunction with a lateral window frame insulation improve the energy efficiency of the building.
- **Installation work unchanged:** Installation work identical to the product version with standard guide rails.
- **Integrated insect screen:** Product version with integrated insect screen ex works, available either as roller blind or swivel frame.

## Notes

- Compatible with the box shapes Rectangular, Round, Square and Plaster with a box closed on 4 sides
- Available box sizes: 150, 170 and 190
- Product variant only as left-rolling blind
- Possible in conjunction with profiles A 36, A 44, K 36
- The product variant with Minimax guide rails cannot be combined with other supplementary accessories.

## Construction limit values

The construction limit values are identical to those of the product variant with standard guide rails, such as e.g. guide rail 55-25.

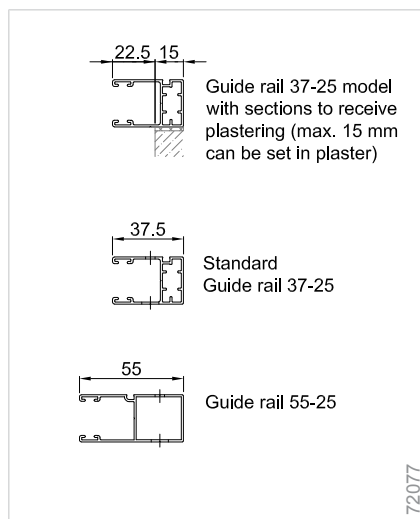
+ see "Front-mounted roller shutters V6", Page 50

## Dimension determination

Dimensions determined in the same way as front-mounted roller shutters with standard guide rails 55-25

## Details

### Direct comparison of Minimax guide rail with standard guide rail







## Supplementary accessories

### Security package

#### Effective safety

Reinforced push-up guards, secured guide rails with aluminium bolts and riveted inspection covers provide perfect protection.

#### Robust

The widened and reinforced guide rails also protect the roller shutter curtain from being bent and pried out.

#### Additional protection

The security package offers additional protection and increased burglar resistance in accordance with DIN 18073.

#### Can be used for:

- Front-mounted roller shutters V6
- Front-mounted roller shutters V10



#### Product characteristics

- Reinforced push-up guard
- Secured against dismantling
- Reinforced safety guide rails

## Product characteristics

### Security package for increased security requirements as per DIN 18073:

- **Reinforced push-up guard:** Higher number of pressure springs
- **Reinforced guide rails:** Reinforcement of the guide rails to prevent bending
- **Secured against dismantling from outside:** Guide rails secured by aluminium bolts and inspection cover riveted in place.
- **Secured against being pried out of the box:** Adapter screwed to the guide rail
- **Increased projection of the roller shutter curtain:** Wider guide rails (60 mm)

## Notes

- **Suitable for use with:**
  - All box shapes
  - Aluminium profile A 36, A 44, A 53, S 37 in wind resistance class 6
  - Regardless of the drive type (exception: S 37 – only with motor)
  - Can only be used in front-mounted roller shutters with boxes closed on 4 sides
- **End rail with a high level of rigidity required:** As a flat end rail with interlocking via sliding bolt or as a triangular design end rail
- **Limitation for group units:** Only single rails can be used for the centre situation. A model with middle rails is not possible.
- **Limitation with insect screen:** Model with insect screen only possible as insect screen roller blind.

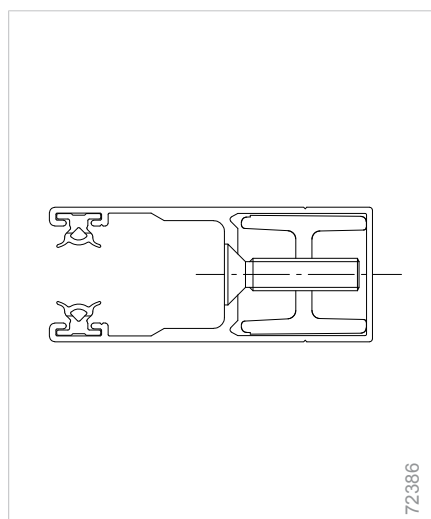
## Dimension determination

### Maximum widths for wind resistance class 6

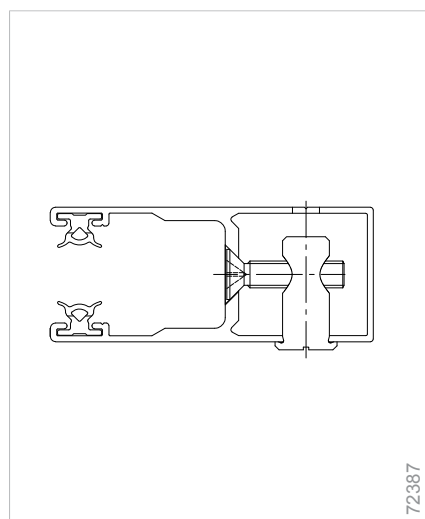
| Roller shutter curtain | Max. width | When using the guide rail |
|------------------------|------------|---------------------------|
| A 36                   | 1700 mm    | 60-25, 60-47, 60-48       |
| A 44                   | 1800 mm    | 60-25, 60-48              |
| A 53                   | 2100 mm    | 60-25                     |
| S 37                   | 2100 mm    | 60-25, 60-48              |

## Details

### Secured against prying the box out from outside



### Secured against dismantling of guide rails







## Supplementary accessories

### Integrated lintel insulation

#### Effective integration

Lintel insulation is the ideal solution for integration into the insulation layer of a facade. Along with this insulation, cover panels and boxes for external venetian blinds, roller shutters or window awnings can be optionally supplied.

#### Energy saving properties

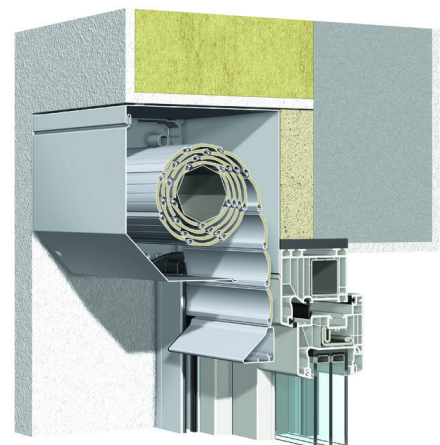
Lintel insulation delivers energy savings by thermally separating the structure and the box.

#### Variable

The insulation is available in different thicknesses. It is either applied behind and/or above the box at the factory as needed.

#### Can be used for:

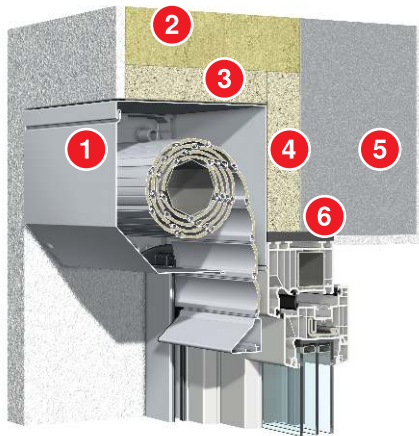
- Front-mounted roller shutters V4
- Front-mounted roller shutters V6
- Front-mounted roller shutters V10



#### ✓ Product characteristics

- Optimum insulation of cover panels and boxes
- Thermal bridges in lintel area are prevented
- Insulation at top or rear of cover panel possible

## Components



- |   |                                |   |                        |
|---|--------------------------------|---|------------------------|
| 1 | Box                            | 4 | Rear lintel insulation |
| 2 | On-site heat insulation (EIFS) | 5 | Wall construction      |
| 3 | Top lintel insulation          | 6 | Foam sealing strip     |

## Product characteristics

- Insulation already mounted on the box at the factory
- Ideal solution for being integrated into the insulation layer of a facade
- Available for box sizes 150 to 210

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

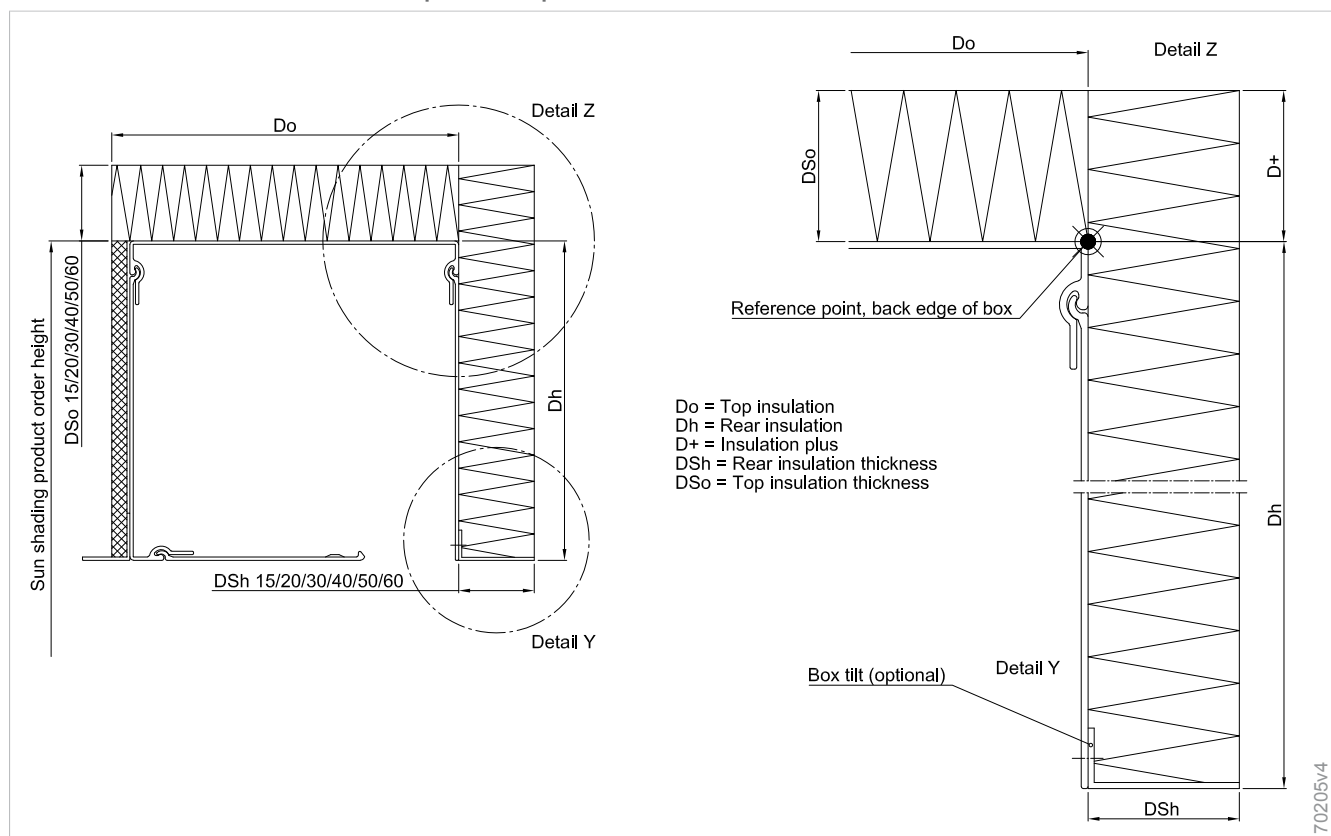
Drive variants

Standards

## Dimension determination

| Reference dimension | Dimension determination                                                             |
|---------------------|-------------------------------------------------------------------------------------|
| Do                  | Top insulation                                                                      |
| Dh                  | Rear insulation                                                                     |
| D+                  | Increase of the rear insulation by the insulation thickness of the upper insulation |
| DSh                 | Rear insulation thickness                                                           |
| DSO                 | Top insulation thickness                                                            |

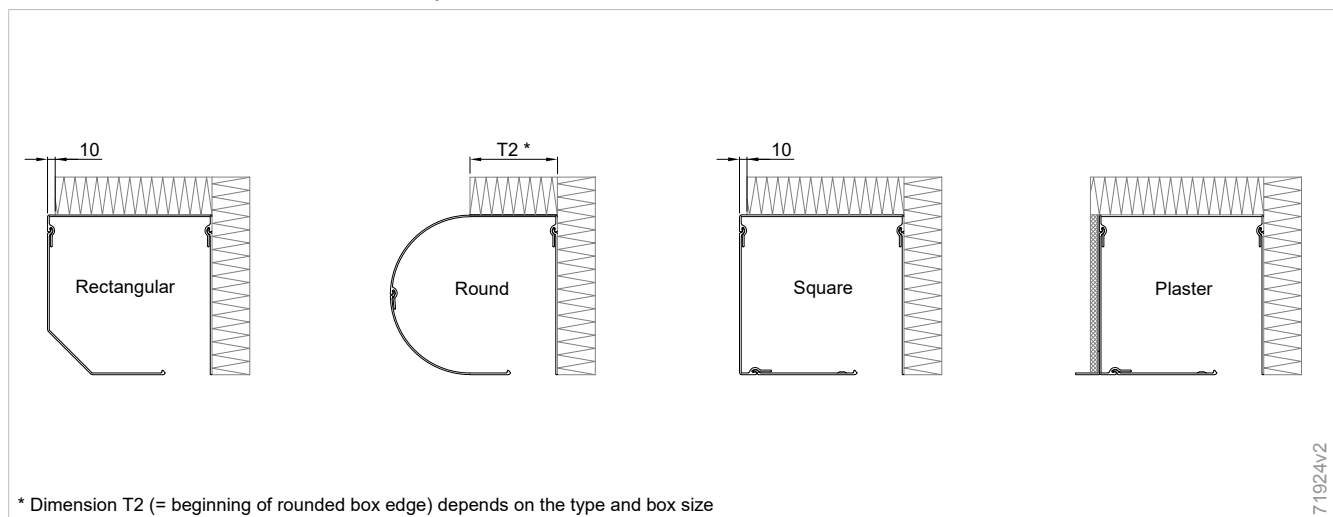
### Dimension determination based on example box shape Plaster



- The reference point is generally located on the back edge of the cover panel/box.
- Dh (rear insulation) must always be indicated.
- On cover panels and boxes with an insulated top side, the rear insulation is applied as follows: D+ (insulation plus) = DSo (top insulation thickness).
- If the insulation of the cover panels and boxes is only applied on one side, then the insulation always ends at the reference point, unless D+ (insulation plus) is specified.
- If Dh (rear insulation) is to end below the reference point, D- (insulation minus) must be indicated.
- If Do (top insulation) is not applied over the complete cover panel/box depth, (offset on the front of the box), the dimension of Do (insulation top) must be specified.
- On cover panels and boxes with plaster base plates, the Do (top insulation) always ends flush with the leading edge of the plaster base plate on the front of the cover panel/box.
- We recommend planning the cable exit laterally.
- Specify and/or observe on-site tolerances.
- Other variants are possible on request.

## Details

### Variants and dimensions for each box shape



- **Box shape Rectangular and Square:** The insulation panel is recessed by 10 mm when ordering full insulation at the top of the box.
- **Dimension determination T2:**
  - V4/V6: Size 150 box 80 mm, size 170 box 90 mm, size 190 box 100 mm, size 210 box 110 mm (only available for V6)
  - V10: Size 150 box 106 mm, size 170 box 116 mm, size 190 box 126 mm, size 210 box 136 mm

**Connection bracket for rear side of box:** A connection bracket for the rear side of the box is optionally available to face the insulation between the box and window.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Additional product information

### PUR insulation

Insulating material: Polyurethane rigid foam (PUR) with aluminium lamination on both sides

Thermal conductivity:  $\lambda = 0.024 \text{ W/(mK)}$

The PUR insulation plates are preassembled at the factory and fitted on the cover panels.

#### Available insulation thicknesses

| Insulation thickness in mm | Thermal resistance R |
|----------------------------|----------------------|
| 15                         | 0.6                  |
| 20                         | 0.8                  |
| 30                         | 1.2                  |
| 40                         | 1.6                  |
| 50                         | 2.0                  |
| 60                         | 2.4                  |

Intermediate sizes are not possible.

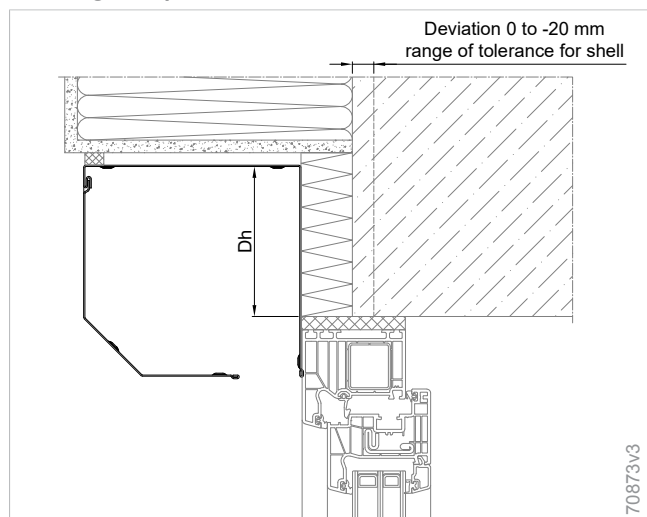
### Accessories for proper connection of the awning to the facade

| Designation        | Art. no.                              | Unit   |            |
|--------------------|---------------------------------------|--------|------------|
| Foam sealing strip | 20x5-12, self-adhesive, black         | 811023 | 5.6 m roll |
|                    | 20x4-9, self-adhesive, black          | 811039 | 8 m roll   |
|                    | 20 × 2-6, self-adhesive, black        | 811007 | 12 m roll  |
| Connection bracket | To face the rear insulation           |        |            |
|                    | Incl. the finishing of the insulation |        |            |

For a connection to the structure which is free from back flow, insulation material adhesive foam (e.g. Soudal Soudabond Easy) can also be used.

### Mounting examples

#### Mounting example for front-mounted roller shutters



# Guide rails with integrated insulation

## Can be used for:

- Front-mounted roller shutter V4
- Front-mounted roller shutter V6

## Components



- |   |                    |   |               |
|---|--------------------|---|---------------|
| 1 | Guide rail         | 3 | Cover profile |
| 2 | Insulation profile |   |               |

## Product characteristics

- For a thermal barrier between window frame and guide rail
- Insulation profile made of highly compressed EPS foam
- Aluminium cover profile in guide rail colour to protect the insulation and as an optical covering
- Cover profile and insulation with groove to immediately drain incoming water on window sills

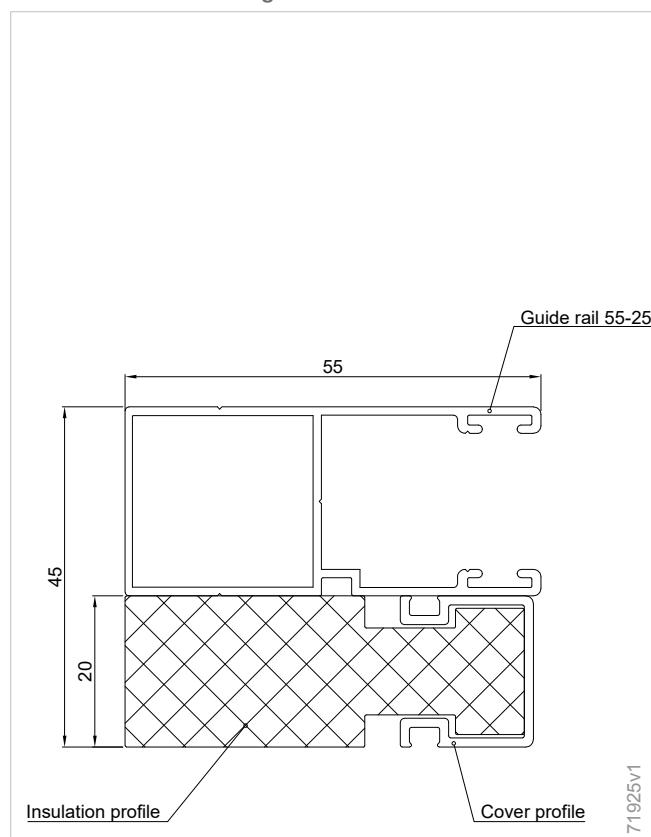
## Notes

- Can be used for guide rail 55-25 or middle rail 85-25
- Thickness insulation profile 20 mm
- Insulation profile and cover profile are firmly integrated into the guide rails ex works
- Optional connection bracket for rear side of wall available for closing the gap between the box and window
- Insulation in connection with additional guide rails only on request and after clarification on the basis of application technology

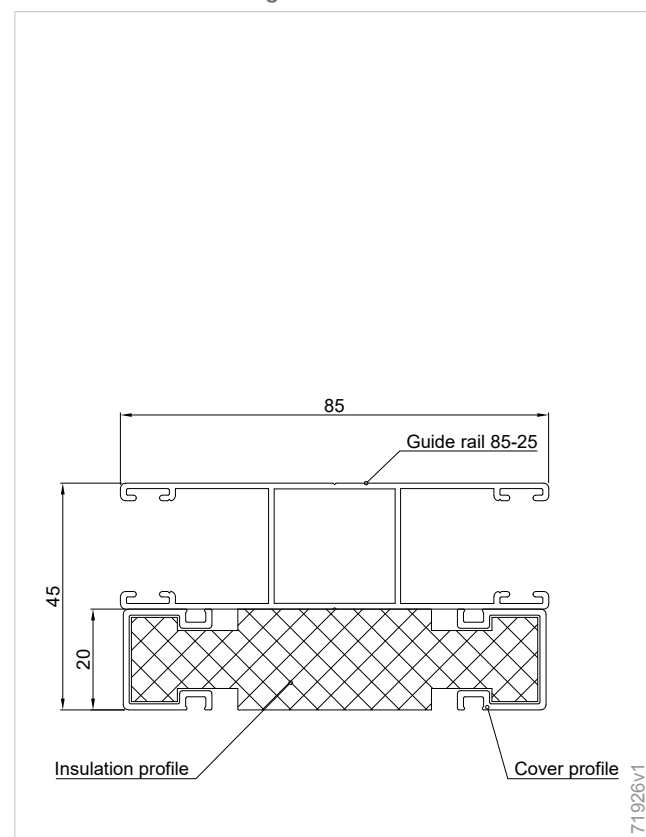
## Dimension determination

### Details

Guide rail with 55-25 integrated insulation



Guide rail with 85-25 integrated insulation



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards





## Supplementary accessories

### Integrated insect screen

#### Cleverly combined

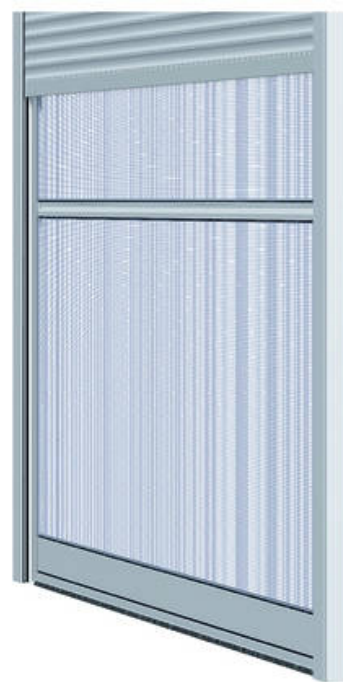
The insect screen is planned to be integrated into the sun shading system from the beginning and is installed at the same time - no separate measuring required. Retrofitting at a later time is also possible on request.

#### The best quality of life

Insect screen is available in various models, for example as a roller blind or fixed frame. For frequently-used passageways, a selection of convenient solutions for door situations are available to choose from.

#### View out and function

Insect screen gauzes are available in various qualities: The standard WAREMA VisionAir gauze offers a brilliant view out with optimal air circulation. Alternatively, special gauzes can be used, such as pollen protection gauze, WAREMA VisionAir fine dust screens and many more.



#### Product characteristics

- Sun shading systems and integrated insect screens from a single source
- Ideally ventilate living areas without annoying insects
- Aluminium parts match the colour of the sun shading system

# Integrated insect screen roller blind

## Can be used for:

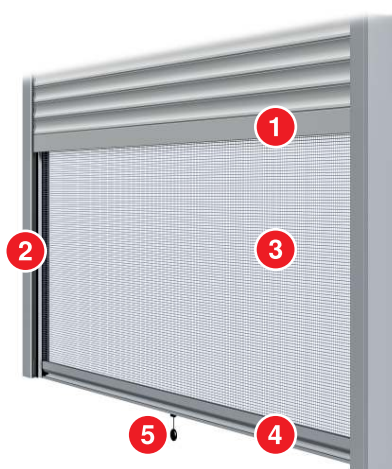
- Standard feature for front-mounted external venetian blinds V10 (included as standard for models up to 5.0 m in area or 2000 mm in width and 2500 mm in height)

## Available as an option for:

- Front-mounted roller shutters V4 and V6
- Top-mounted roller shutter for new buildings inspection from inside and outside
- Top-mounted roller shutters AU-RO
- Renovation roller shutters RE-RO

## Components

Integrated insect screen roller blind (based on example of roller shutter)



- |   |                                                 |   |                           |
|---|-------------------------------------------------|---|---------------------------|
| 1 | Sun shading system (figure with roller shutter) | 4 | Insect screen handle rail |
| 2 | Guide rail                                      | 5 | Tassel                    |
| 3 | Insect screen gauze                             |   |                           |

## Product characteristics

### Standard scope of delivery:

- Shaft incl. WAREMA VisionAir gauze, black
- Drive via spring-loaded shaft
- Aluminium handle rail, powder-coated, with integrated brush seal for window and 85 mm tassel
- Interlocking in the lower area using an end closure with catch mechanism
- Smooth raising due to soft-raise function
- Guide rails for aluminium insect screen roller blinds

### Optional:

- Brush seal with downward sealing
- Cord tassel 600 mm

## Construction limit values

Construction limit values for a model with an integrated insect screen roller blind are available with the respective support product.

## Dimension determination

The dimension drawings for a model with an integrated insect screen roller blind are available with the respective support product.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



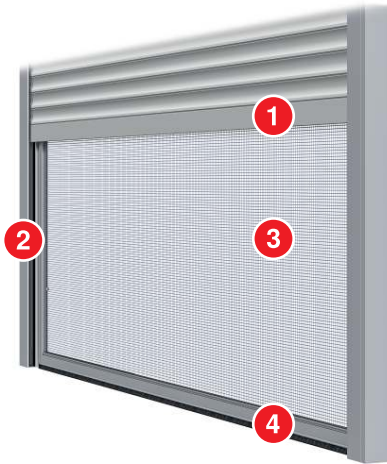
# Integrated insect screen fixed frame

## Can be used for:

- Front-mounted roller shutters V4, V6, V10
- Other support products on request

## Components

Integrated insect screen fixed frame (based on example of roller shutters)



- |   |                                                 |   |                                              |
|---|-------------------------------------------------|---|----------------------------------------------|
| 1 | Sun shading system (figure with roller shutter) | 3 | Insect screen gauze                          |
| 2 | Fixed frame incl. fixing via spring pins        | 4 | Bottom closure for fixed frame incl. sealing |

## Product characteristics

### Standard scope of delivery:

- Fixed mounted frame for mounting and removal using spring pins, for mounting in front-mounted roller shutters V4 or V6 with guide rails 55-47 or V10 with guide rails 55-52
- Lateral storage using four spring pins in the spacer guide rail's fixing holes
- Frame profile 12.5 x 30 mm, powder-coated in the support product colour (box colour), with surrounding brush seal, lateral overlap maximum 35 mm
- A central supporting sash bar is standard for fixed frame profile lengths of 1500 mm and greater
- WAREMA VisionAir gauze (the gauze is positioned toward the outside)

### Optional:

- Additional sash bars or other sash bars different from the standard
- Stainless steel gauze or pollen protection, WAREMA VisionAir fine dust screen, wear-resistant gauze
- Other fixed frame models on request

## Construction limit values

Construction limit values for a model with an integrated insect screen fixed frame are available with the respective support product (see TechDataPLUS).

## Dimension determination

The dimension drawings for a model with an integrated insect screen fixed frame are available with the respective support product (see TechDataPLUS).

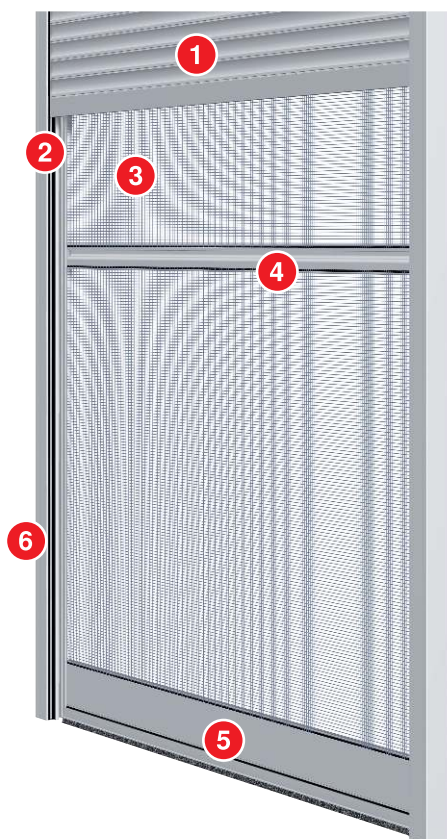
# Integrated insect screen swivel door

## Can be used for:

- Front-mounted roller shutters V4, V6, V10
- NA-RO inspection from inside and outside
- AU-RO, RE-RO

## Components

Integrated insect screen swivel doors (based on example of roller shutter)



|   |                                                 |   |                                                                                                        |
|---|-------------------------------------------------|---|--------------------------------------------------------------------------------------------------------|
| 1 | Sun shading system (figure with roller shutter) | 4 | Integrated handle rail                                                                                 |
| 2 | Guide rail                                      | 5 | Kick profile and lower sealing                                                                         |
| 3 | Insect screen gauze                             | 6 | Mounting frame (for external venetian blind window systems and front-mounted external venetian blinds) |

## Product characteristics

### Standard scope of delivery:

- Aluminium swivel door that opens outwards with retracted brush seal and magnetic strip
- Models with 1 or 2 wings available
- Either with or without mounting frame, depending on support product - see notes
- Incl. hinges, fixing screws and automatic door closing aid
- Frame profile 12.5 x 30 mm and 12.5 x 28 mm, powder-coated in the support product colour (box colour)
- Brush seal sealing to window frame (specify dimension X!)
- From a side hung window height of 1500 mm, incl. extruded aluminium central support sash bar
- From a side hung window height of 1800 mm, incl. extruded aluminium central cross rail with integrated handle rail and kick profile
- WAREMA VisionAir gauze, black

### Optional:

- Brush seal with sealing to window sill
- Other positions are possible for the handle rail and sash bar, additional sash bars possible
- Stainless steel gauze or pollen screen, wear-resistant gauze, WAREMA VisionAir fine dust screen

## Notes

Insect screen swivel doors are not available in an anodised finish.

### Type-dependent limitations:

- Incl. mounting frame for V4, V6, V10, NA-RO inspection from outside and RE-RO
- Without mounting frame for NA-RO inspection from inside and AU-RO

## Construction limit values

Construction limit values for the model with an integrated insect screen swivel door are available with the respective support product (see TechDataPLUS).

## Dimension determination

The dimension drawings for a model with an integrated insect screen swivel door are available with the respective support product (see TechDataPLUS).

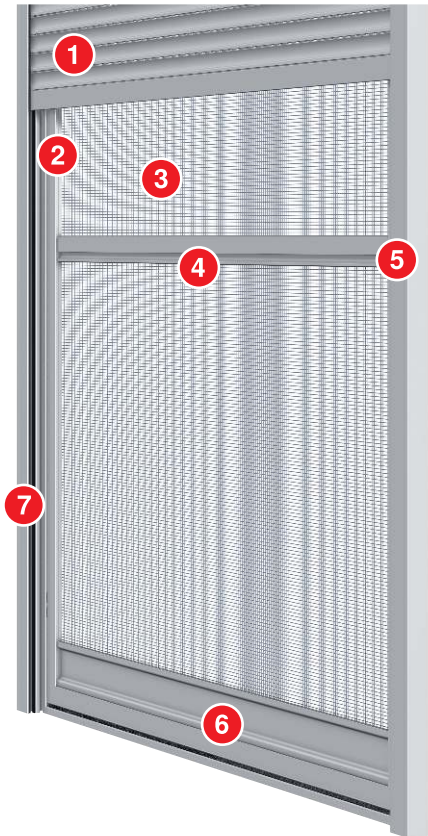
# Integrated insect screen swinging door

## Can be used for:

- Front-mounted roller shutters V4, V6, V10

## Components

Integrated insect screen swinging doors (based on example of roller shutter)



|   |                                                 |   |                                      |
|---|-------------------------------------------------|---|--------------------------------------|
| 1 | Sun shading system (figure with roller shutter) | 5 | Hinge (central and lower)            |
| 2 | Swinging door                                   | 6 | Kick profile incl. sealing downwards |
| 3 | Insect screen gauze                             | 7 | Mounting frame                       |
| 4 | Insect screen handle rail                       |   |                                      |

## Product characteristics

### Insect screen swinging door - Standard scope of delivery:

- Swinging door with contactless magnetic catch in neutral position for installation using a mounting frame
- Opening direction outwards and inwards
- Swivel fixing via pivot hinges, autonomous return to central closed position through spring balancer system
- A brush seal between the wing and mounting frame prevents insects from getting in.
- VisionAir gauze, black
- Incl. horizontal aluminium handle rail, 10 x 52 mm, powder-coated, can be operated from inside and outside
- Powder-coated aluminium parts in roller shutter colour

### Optional:

- Other positions are possible for the handle rail and sash bar, additional sash bars possible
- Stainless steel gauze or pollen screen, wear-resistant gauze, WAREMA VisionAir fine dust screen

## Construction limit values

Construction limit values for a model with an integrated insect screen swinging door are available with the respective support product (see TechDataPLUS).

## Dimension determination

Dimension drawings for a model with an integrated insect screen swinging door are available with the respective support product (see TechDataPLUS).

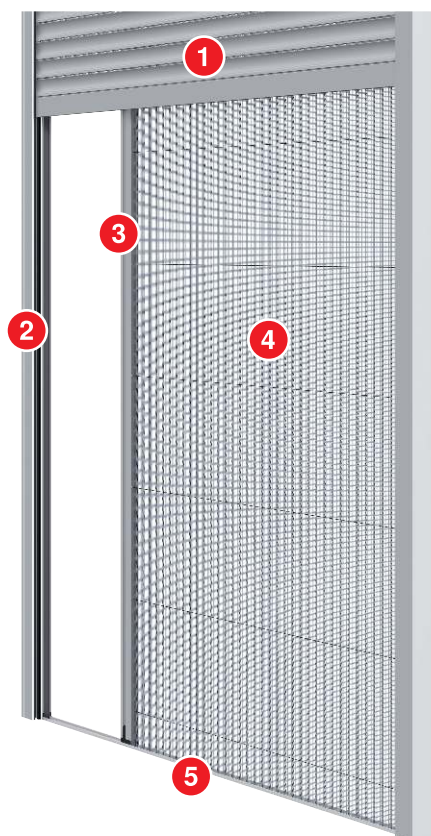
# Integrated insect screen pleated blind

## Can be used for:

- Front-mounted roller shutters V4, V6, V10

## Components

Integrated insect screen pleated blind (based on example of roller shutter)



- |   |                                                 |   |                             |
|---|-------------------------------------------------|---|-----------------------------|
| 1 | Sun shading system (figure with roller shutter) | 4 | Pleated insect screen gauze |
| 2 | Lateral pleated blind end profile               | 5 | Base profile                |
| 3 | Sash profile for opening and closing            |   |                             |

## Product characteristics

### Insect screen pleated blind - Standard scope of delivery:

- Horizontally movable insect screen pleated blind, can be used with lifting and sliding doors and other door openings
- For use on balconies and small patios
- Installation with mounting frame
- Operation using vertical handle rail (across the entire height), sliding direction is determined during installation
- 100 % PES gauze, black, pleated (design 47100)

### Optional:

- Wedge strip for fastening the base profile

## Construction limit values

Construction limit values for a model with an integrated insect screen pleated blind are available with the respective support product (see TechDataPLUS).

## Dimension determination

The dimension drawings for a model with an integrated insect screen pleated blind are available with the respective support product (see TechDataPLUS).

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards





## Supplementary accessories

### Integrated fall protection VisioNeo

#### Playing it safe

Permanently integrated window panes for floor-to-ceiling windows that provide occupants, especially children, with reliable fall protection (test certificate for building products or construction designs).

#### Slender design

The discreet fall protection VisioNeo can be harmoniously integrated into any facade and adds to the facade's style.

#### A sophisticated solution

The sun shading system lowers easily down to the ground in front of the pane, providing the usual optimum protection from the sun and glare control.



#### Can be used for:

- External venetian blind window systems FSR
- Front-mounted external venetian blinds R6
- Top-mounted external venetian blinds for new buildings NA-RA
- Front-mounted roller shutter V6
- Top-mounted roller shutters for new buildings NA-RO, inspection from outside
- Awning window systems with easyZIP guidance
- Front-mounted awnings with easyZIP guidance
- VisioNeo Single: Fall protection VisioNeo can also be configured as the "VisioNeo Single" variant without being combined with a sun shading system.

**You can find detailed information on planning in the separate technical data/price list for "Integrated fall protection VisioNeo".**



#### Construction limit values

Maximum order width 2500 mm



#### Product characteristics

- Safety and optimum view out
- Also available for middle rails
- Also available without sun shading as VisioNeo Single

## Components

Integrated fall protection VisioNeo based on example of roller shutters



- |   |                                                            |   |                                                                               |
|---|------------------------------------------------------------|---|-------------------------------------------------------------------------------|
| 1 | Cover panel for guide rail, top and bottom                 | 4 | Glass edge protection, top                                                    |
| 2 | Roller shutter guide rail with integrated clamping profile | 5 | Glass edge protection, bottom, incl. brush seal (in model with insect screen) |
| 3 | Glass (carried out on-site)                                |   |                                                                               |

## Product characteristics

The guidance system from WAREMA offers the possibility of integrating an additional glass fall protection into the facade with selected sun shading systems. This can be ordered at the same time as the sun shading system without additional planning effort. The glass is embedded through vertical, linear glass fixing in accordance with DIN18008-4 category A, according to the Building Regulation List A, Part 3 (model without load-bearing handrail; with glass edge protection).

### The benefits for you at a glance:

- Planning security through a "allgemeines bauaufsichtliches Prüfzeugnis" [German test certificate for building products or construction designs]
- System statistics
- Slender construction for high design standards
- Perfect edge protection on the upper/lower side of the glass edge with subtle aluminium profile
- Powder coating of all aluminium parts according to the WAREMA Colour World for a harmonious appearance
- Ease of assembly with standard fixing materials
- Fixing directly on the window frame
- Covered screw connection of the guide profiles
- Insect screen can be integrated and retrofitted

## Notes

### Notes on planning:

- WAREMA supplies the systems with a "Allgemeines bauaufsichtliches Prüfzeugnis" [German test certificate for building products or construction designs]. The product fall protection VisioNeo in combination with the corresponding sun shading product, as well as VisioNeo Single without a sun shading product, is a construction type in accordance with Building Regulation List A Part 3 DIN 18008-4.
- The applicable Landesbauordnung [German building regulations for the respective Federal State] (LBO) must be taken into account for this building feature.
- During planning, it is essential that the technical data for fall protection VisioNeo be observed.
- Filling material exclusively glass (VSG)
- The glass is not included in the scope of delivery (WAREMA specifies the required glass type and the required order dimensions for the glass together with the order confirmation).
- Final assembly of the glass is conducted by WAREMA's customer. Once assembled, this customer is obliged to provide the property developer with a certificate of compliance in accordance with the "Allgemeines bauaufsichtliches Prüfzeugnis" [German test certificate for building products or construction designs] (AbP), in which they sign to confirm that the assembly has been completed correctly in accordance with the specifications of this AbP.

**For installation outside of Germany, country-specific regulations must be observed.**

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

## Dimension determination

### Construction limit values

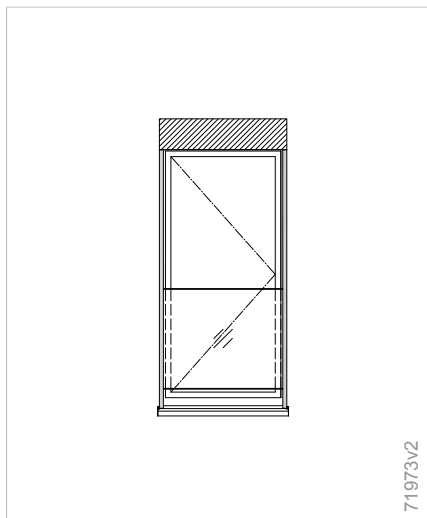
#### Construction limit values for glass dimensions

|                                                                                                         | Dimensions in mm | Note on construction limit values                                                                       |
|---------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------|
| Minimum glass width                                                                                     | 350              | The minimum width depends on the respective sun shading product, except in the case of VisioNeo Single. |
| Maximum glass width                                                                                     | 2500             | For group unit with centre rails, max. 3 glass panels can be placed next to each other.                 |
| Minimum glass height                                                                                    | 500              |                                                                                                         |
| Maximum glass height                                                                                    | 1200             |                                                                                                         |
| Balustrade height in accordance with LBO [German building regulations for the respective Federal State] | 900-1100         | Value from top edge of finished floor level                                                             |

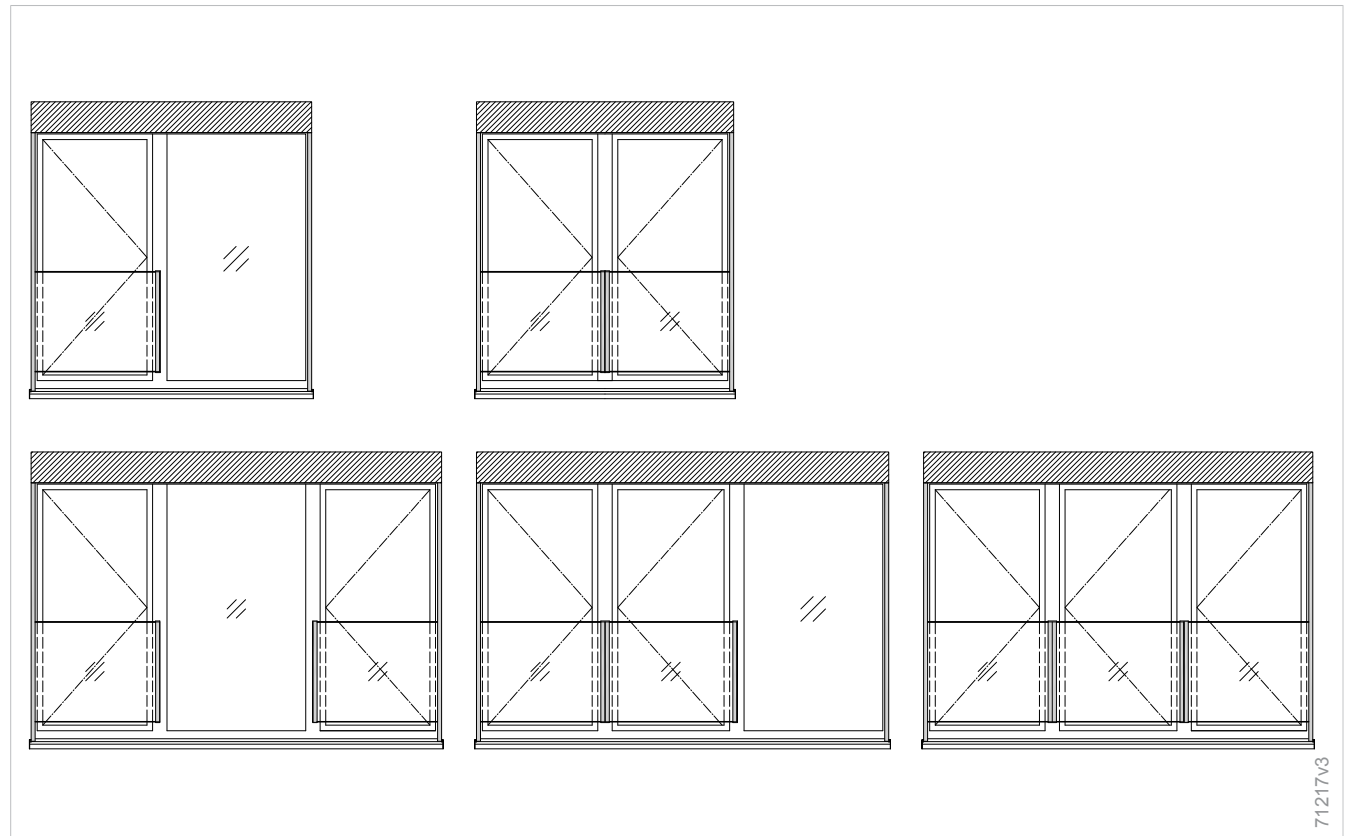
The construction limit values must be observed separately depending on the respective product type.

### Mounting examples

#### Integrated fall protection VisioNeo as individual unit



## Integrated fall protection VisioNeo with middle rails (single and double middle rail)

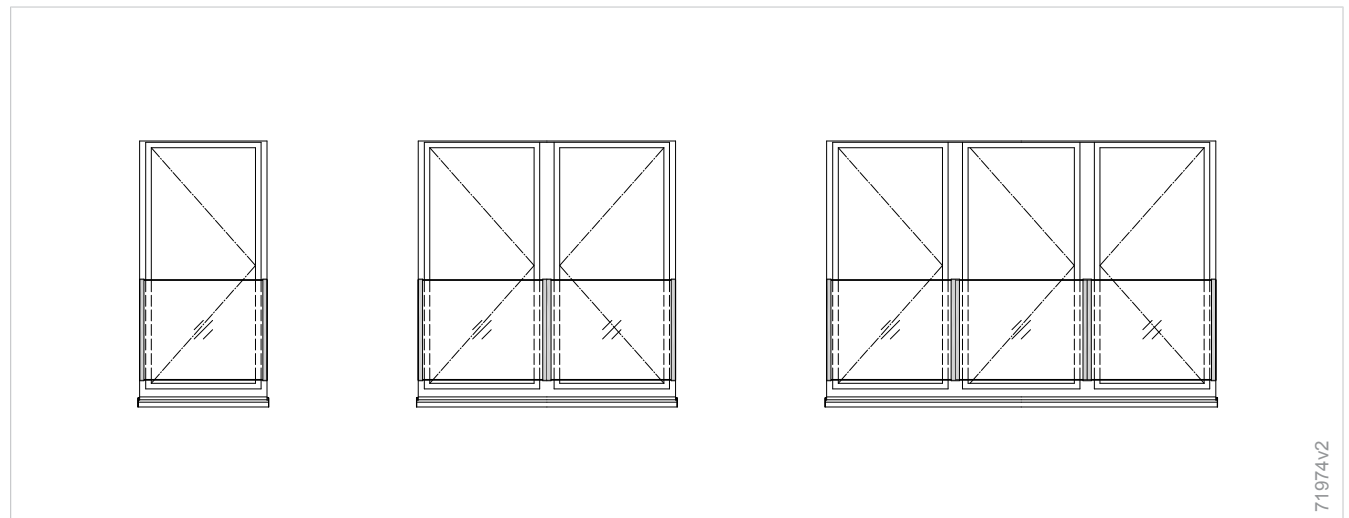


Planning

Front-mounted roller shutters

Top-mounted roller shutters

## Fall protection VisioNeo Single



Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards





## Supplementary accessories

### Solar drive

#### Efficient technology

The solar energy is stored in a storage battery, powered by a 12 volt motor. The storage battery and control system are concealed in the box.

#### Easy installation

Solar-powered sun shading systems are self-sufficiently powered via the solar panel. Electrical connection work and line routing are not required.

#### Convenient operation

The product is operated via a 1 channel EWFS wall-mounted transmitter. Multi-channel wall-mounted transmitters and hand-held transmitters can also be supplied on request

#### Can be used for:

- Front-mounted roller shutters V10
- Asymmetrical roller shutters S10



#### Construction limit values

|                      |                    |
|----------------------|--------------------|
| Maximum order width  | 2200 mm            |
| Maximum order height | 2750 mm            |
| Maximum order area   | 3.5 m <sup>2</sup> |



#### Product characteristics

- Use of solar energy via solar panel
- Retrofitting possible

## Product characteristics

### Solar-powered control system

- It is designed to permit the operation of the roller shutter with solar drive at least 2x per day even under average light conditions (cloudy sky).
- Shortages possible during very long periods of bad weather.
- Operated with EWFS wall-mounted transmitter
- Solar panel dimensions: Width 485 mm, height 82 mm, thickness 6 mm (For figure see TechDataPLUS)
- Position of the motor: The motor is always positioned on the side opposite the solar panel.

### Charging the rechargeable batteries

- The charging capacity depends on direct solar radiation and its duration.
- The higher the incidence of solar radiation, the higher the charging capacity.

### Increase of charging capacity using second solar panel (optional)

For frequent operation or unfavourable positioning of the roller shutter, we recommend you install a second solar panel:

- This doubles the charging capacity.
- A second panel serves to ensure that the battery reaches full capacity faster
- The maximum order area is not increased by a second solar panel.
- Subsequent external installation (i.e. not on the element) is possible.
- For models with external solar panels, note that the extended line is not resistant to UV rays. We recommend laying the cable inside a cable channel.

### Internal protective function

- Is triggered when the battery is low.
- Roller shutter will only move "down" when there is sufficient energy to move "up" after moving "down"
- The control system also provides overload protection for the storage battery.

### Emergency power supply

- Possible via separate power supply unit, the roller shutter will still be operated via the EWFS wall-mounted transmitter.
- The power supply unit is not suitable for charging the battery.
- The power supply unit must be ordered separately.

### Care and maintenance

The solar panel must be free of dirt in order to guarantee operational safety.

## Notes

### Limitations for model with solar drive:

- **No anodisation available:** Only powder-coated finishes are available in conjunction with solar drives (no anodisation)!
- **Radio time switch:** Radio time switches cannot be used in combination with solar drives.

### Type-dependent limitations:

- **V10 only possible without insect screen:** Insect screen roller blinds cannot be used in combination with solar drives.
- **Guide rails:**
  - Guide rail 55-52 mm is used for V10 with solar drive.
  - Guide rails with a 30 mm backing are used for S10 with solar drive.

## Dimension determination

### Construction limit values for V10 with solar drive

| Construction limit values | Roller shutter curtain A 36 | Roller shutter curtain K 36 |
|---------------------------|-----------------------------|-----------------------------|
| Maximum order width       | 2200 mm                     | 2000 mm                     |
| Maximum order height      | 2750 mm                     | 2750 mm                     |
| Maximum order area        | 3.5 m <sup>2</sup>          | 3.2 m <sup>2</sup>          |

- **Maximum order areas cannot be exceeded:** The maximum dimensions must be strictly adhered to.
- **Minimum order width:**
  - The minimum order width is 550 mm for the use of one solar panel and is 1100 mm for two solar panels.
  - The minimum width must be observed, as the solar panel must be offset on the box by 25 mm on both sides across its width.
- **No coupling of couplers:** Only single drives

### A limitation to the maximum order height for each box size with the model V10 with solar drive

| Roller shutter curtain | Box size 150 | Box size 170 | Box size 190 |
|------------------------|--------------|--------------|--------------|
| A 36                   | 1850 mm      | 2600 mm      | 2750 mm      |
| K 36                   | 1850 mm      | 2600 mm      | 2750 mm      |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

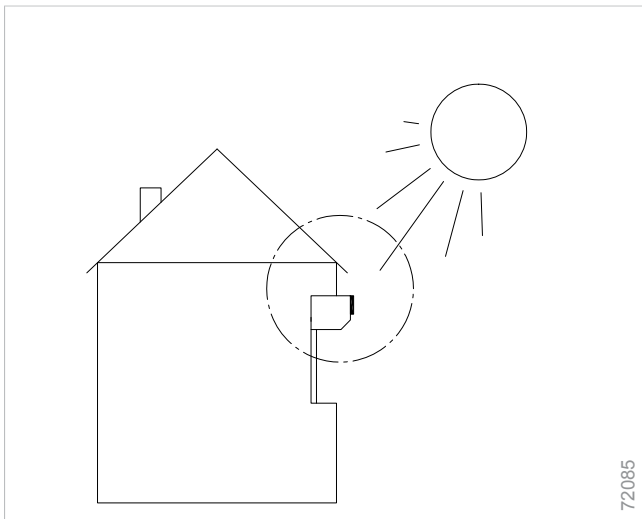
## Additional product information

### Solar panel alignment

When planning installations, please make sure that no obstacles as described below are present at the installation location of the roller shutter:

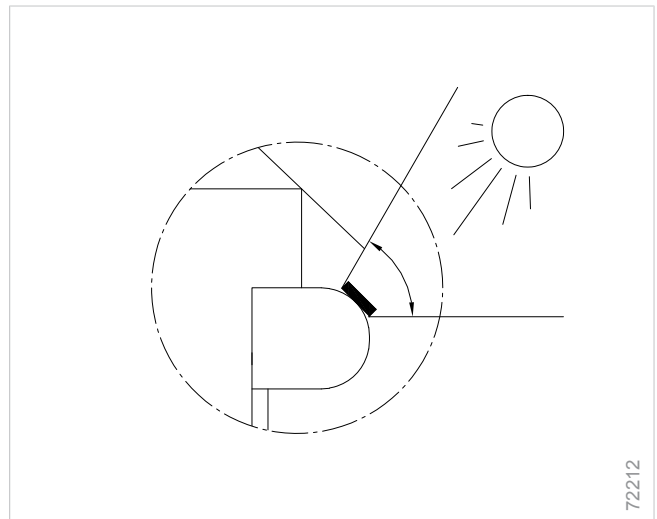
- **Ideal state:** Positioning: south, west, south-west, south-east and east
- **Solar panel alignment:** Ensure that the sky is directly visible from the viewpoint of the solar panel.
- **Alignment to north, north-west and north-east:** Ensure that the solar panel has an unhindered view of the sky in all directions.
- **Incidence area:** The possible incidence area must be at least 60°.
- **Non-suitable installation locations:** For non-suitable installation locations, we recommend that the solar panel is installed externally in a suitable location.

Ideal state positioning

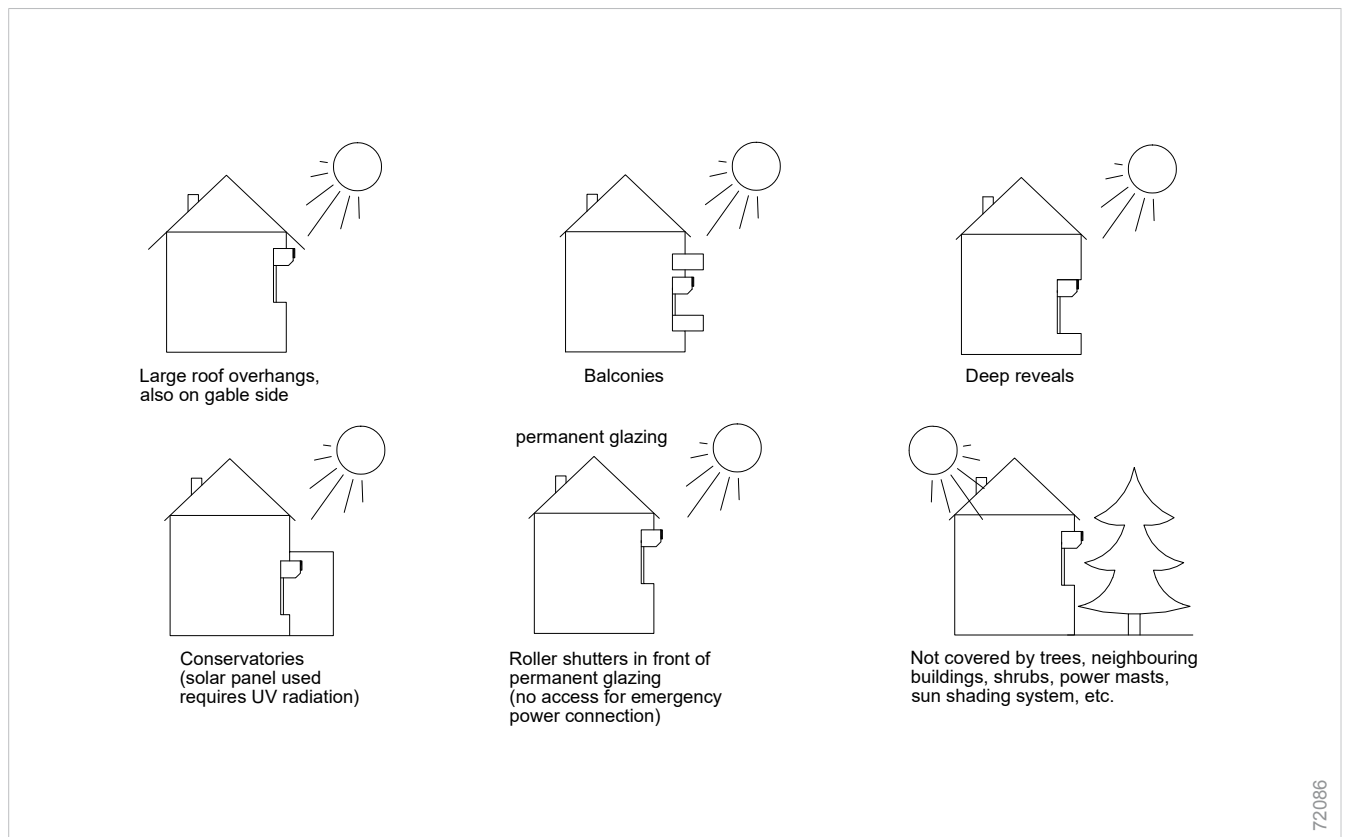


Ideal state: Positioning to the south, west, south-west, south-east or east

Incidence area min. 60°



## Solar drive, non-suitable installation locations



### Non-suitable installation locations:

- For non-suitable installation locations, we recommend that the solar panel is installed externally in a suitable location.
- Possible solutions for an externally installed solar panel can be found in the TechDataPLUS.

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## Supplementary accessories

### WAREMA SecuKit

#### Fast

Additional belt operation for roller shutters with motor operation. Using the tried and tested method, the roller shutter can be opened via the belt within just a few seconds. Incorrect operation is impossible, as no additional knowledge is required.

#### Reliable

This means that the lowered sun shading system will no longer block the way in the event of a power failure. The roller shutter can be raised at any time, allowing occupants to leave the building.

#### Simple

No limitations to normal operation and no additional maintenance.

#### Can be used for:

- Front-mounted roller shutters V4, V6, V10
- Top-mounted roller shutters AU-RO
- Top-mounted roller shutters for new buildings NA-RO inspection from inside
- Top-mounted roller shutters for new buildings NA-RO, inspection from outside



#### Construction limit values

Maximum order area 5.0 m<sup>2</sup>

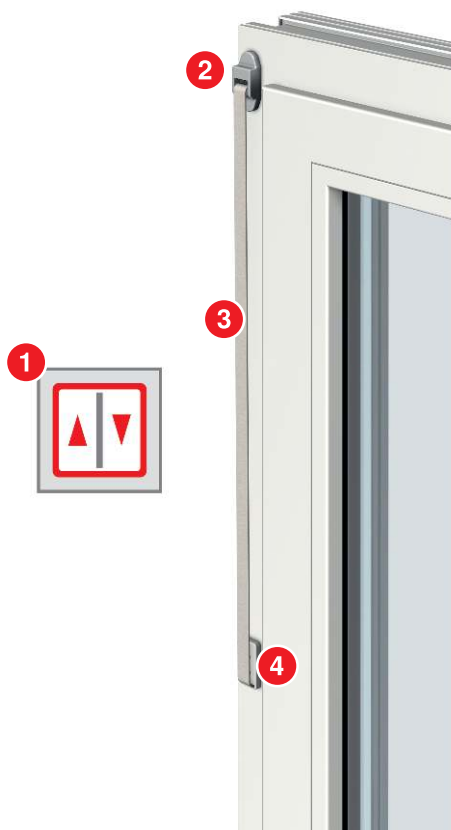


#### Product characteristics

- Additional manual opening for motor-operated roller shutters
- Opening in a matter of seconds
- Ideal for use in emergency routes



## Components



- |   |                                                                |   |                   |
|---|----------------------------------------------------------------|---|-------------------|
| 1 | Motor operation (switch not included in the scope of delivery) | 3 | Belt              |
| 2 | Belt guiding roller                                            | 4 | Fixed belt fixing |

## Drive variants

- Basic motor
- Belt, 14 mm

### Basic motor

- Tubular motor RT+8/17, 230V, 50Hz, line 0.09m, D50, ad., sz. 52, oct. tube, adaptation kit, R-head, Becker angle plug

### Belt

- Belt, 14 mm

➕ see "Drive variants", Page 329

## Product characteristics

- Roller shutters with motor drive and an additional manual operating possibility via belt (scope of delivery: without operating switch). The belt is positioned on the non-drive end.
- A conventional 230 V drive with movement behaviour identical to the basic motorisation is used.
- In normal daily operation, the familiar preferences of the basic motorisation (such as upper and lower torque overload protection, freezing protection, obstacle detection, optimum box closure etc.) can be used without restriction. (Model not possible with radio motor).

- The motor can be combined with a control without limitations.
- Fixing of the belt in the inside of the room via a fixed, unobtrusive belt fixing made of plastic, white or black. No belt winder required!
- The roller shutter curtain holds itself in position automatically when being raised and the belt unwinds automatically on the belt disc via spring tension. In normal operation via the motor, the additional belt operation has no function.
- Belt length ex works 2000 mm (shortening is performed on site)
- Operation using the belt does not affect the use of the motor. The motor is ready for use again immediately after manual operation and all functions and motor settings remain unaffected at the same time.

## Notes

- Can only be used in conjunction with the declared support products
- No separate delivery of components for retrofitting
- Only available for individual units, no combinations possible
- WAREMA SecuKit can only be combined with an insect screen swivel frame after applied engineering examination

## Legal information

As there are no legal standards concerning the shading of escape and emergency routes with sun shading products, the use of a WAREMA SecuKit must, taking the fire protection concept into account, be clarified with the responsible body (e.g. Section 66 of the MBO [German building regulations for the standardisation of regional state building regulations]) and must be approved by this body. Product details can be found in the current technical documentation.

## Construction limit values

- The construction limit values for the respective type of roller shutter and all other limitations on belt operation apply (belt 14 mm).
- The variant with an external belt or belt deflection is not possible.
- WAREMA SecuKit for top-mounted roller shutters is possible with both vertical and horizontal belt outlets.

## Dimension determination

Dimension determination is the same as for conventional roller shutters.

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## Maximum drive areas in m<sup>2</sup>

### Front-mounted roller shutters

| Roller shutter curtain | Box size | Max. drive area    |
|------------------------|----------|--------------------|
| A 36, A 44             | 150      | 4.0 m <sup>2</sup> |
|                        | 170      | 4.5 m <sup>2</sup> |
|                        | 190, 210 | 5.0 m <sup>2</sup> |
| K 36                   | All      | 3.2 m <sup>2</sup> |
| A 53                   | 150      | 3.0 m <sup>2</sup> |
|                        | 170      | 3.5 m <sup>2</sup> |
|                        | 190, 210 | 4.0 m <sup>2</sup> |

**Minimum order width:** 755 mm

### Top-mounted roller shutters AU-RO

| Roller shutter curtain | Box size | Max. drive area    |
|------------------------|----------|--------------------|
| A 36, A 44             | 175      | 4.0 m <sup>2</sup> |
|                        | 200      | 4.5 m <sup>2</sup> |
|                        | 240      | 5.0 m <sup>2</sup> |
| K 36                   | All      | 3.2 m <sup>2</sup> |
| A 53                   | 175      | 3.0 m <sup>2</sup> |
|                        | 200      | 3.5 m <sup>2</sup> |
|                        | 240      | 4.0 m <sup>2</sup> |

**Minimum order width:** 765 mm

### Top-mounted roller shutters NA-RO

| Roller shutter curtain | Box size | Max. drive area    |
|------------------------|----------|--------------------|
| A 36, A 44             | 240x250  | 4.5 m <sup>2</sup> |
|                        | 300x250  | 4.5 m <sup>2</sup> |
|                        | 365X250  | 4.5 m <sup>2</sup> |
|                        | 300X300  | 5.0 m <sup>2</sup> |
|                        | 365X300  | 5.0 m <sup>2</sup> |
|                        | All      | 3.2 m <sup>2</sup> |
| A 53                   | 240x250  | 3.5 m <sup>2</sup> |
|                        | 300X250  | 3.5 m <sup>2</sup> |
|                        | 365X250  | 3.5 m <sup>2</sup> |
|                        | 300x300  | 4.0 m <sup>2</sup> |
|                        | 365X300  | 4.0 m <sup>2</sup> |
|                        | All      | 3.2 m <sup>2</sup> |

**Minimum order width:** 755 mm

## Additional product information

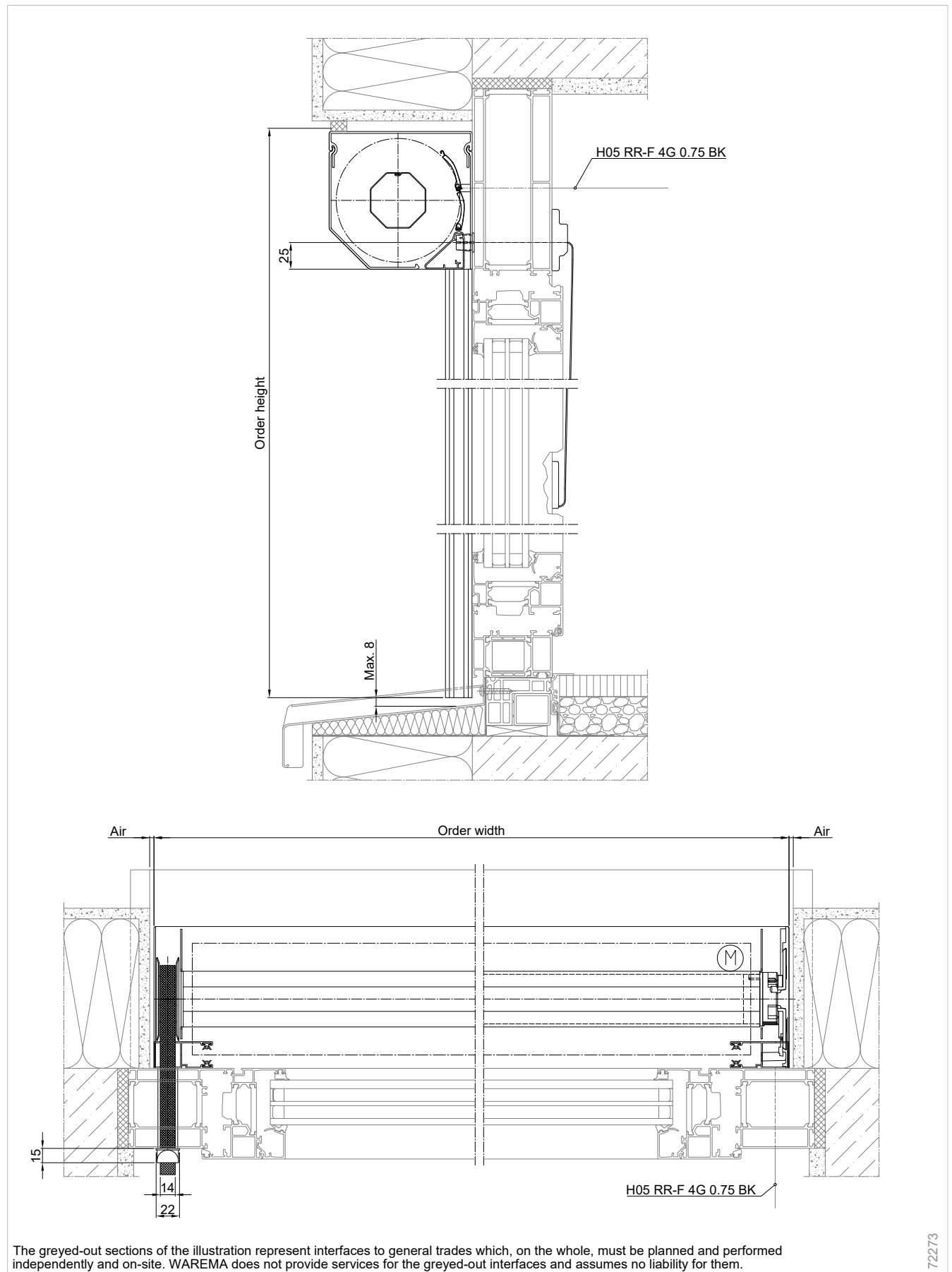
### Belt components

#### Colour map for belt components

| Colour of belt  | Colour of brush guiding roller | Colour of belt fixing |
|-----------------|--------------------------------|-----------------------|
| Grey            | White                          | White                 |
| Brown           | Brown                          | Black                 |
| Black and white | White                          | White                 |

## Mounting examples

### Front-mounted roller shutter V6 with WAREMA SecuKit



72273





## Supplementary accessories

### Motor with additional collapsible crank ZHK

#### Practical

Manual alternatives for opening electrically driven sun shading systems in the event of a power or motor failure.

#### Safe

Additional drive options mean that emergency routes leading outside can be cleared quickly and easily.

#### Versatile

Motor with additional hand crank ZHK can be used for many different types.



#### Can be used for:

- Front-mounted roller shutters V4 and V6
- Top-mounted roller shutters AU-RO
- Top-mounted roller shutter for new buildings inspection from inside and outside



#### Construction limit values

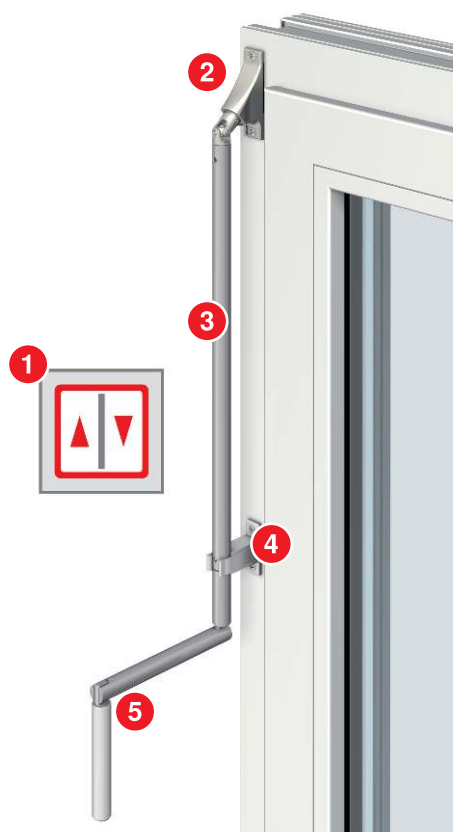
Maximum order area 15 m<sup>2</sup>



#### Product characteristics

- Motor with additional collapsible crank
- Operating option in the case of motor failure
- Opening speed approx. 120 seconds

## Components



- |   |                                                                |   |                       |
|---|----------------------------------------------------------------|---|-----------------------|
| 1 | Motor operation (switch not included in the scope of delivery) | 4 | Crank holder, plastic |
| 2 | Joint plate                                                    | 5 | Collapsible crank     |
| 3 | Crank rod                                                      |   |                       |

- Motor with additional collapsible crank ZHK

+ see "Motor with additional collapsible crank ZHK", Page 334

## Product characteristics

- Alternative manual operating option in the event of motor or power failure
- The crank is only intended for use in the event of a motor failure and is not suitable for continuous operation

## Notes

For this drive, fixed shaft connectors are required to fix the roller shutter curtain to the shaft. These can limit the maximum order height depending on the product, roller shutter curtain used and box size. Observe the corresponding table under "Dimension determination" on this.

### Type-dependent limitations:

- Front-mounted roller shutters: Only available from box size 170
- Top-mounted roller shutters AU-RO: Only available from box size 200 and available with inspection from the rear
- Top-mounted roller shutter for new buildings NA-RO inspection access inside: Not available for box size 240x250 mm

## Legal information

As there are no legal standards concerning the shading of escape and emergency routes with sun shading products, the use of a motors with additional collapsible cranks ZHK must, taking the fire protection concept into account, be clarified with the responsible body (e.g. Section 66 of the MBO [German building regulations for the standardisation of regional state building regulations]) and must be approved by this body. Here the high reduction of the crank gear (1:18) must be given particular consideration.

## Dimension determination

The dimension determination is generally performed in the same way as for conventional roller shutters. However, a limitation to the maximum order height must be observed for each box size. See the following tables.

**Maximum drive area in m<sup>2</sup>**

| Roller shutter curtain | Maximum drive area  |
|------------------------|---------------------|
| A 36                   | 12.3 m <sup>2</sup> |
| A 44                   | 11 m <sup>2</sup>   |
| A 53                   | 8.4 m <sup>2</sup>  |
| S 37                   | 4.6 m <sup>2</sup>  |
| K 36                   | 3.2 m <sup>2</sup>  |
| K 52                   | 5 m <sup>2</sup>    |

**Minimum order width depending on support product**

| Model                                         | Minimum order width |
|-----------------------------------------------|---------------------|
| Front-mounted roller shutters                 | 896 mm              |
| Top-mounted roller shutters                   | 862 mm              |
| Top-mounted roller shutters for new buildings | 896 mm              |

**Maximum order height per box size - Front-mounted roller shutters V4, V6**

| Box size | A 36    | A 44    | A 53    | S 37 | K 36    |
|----------|---------|---------|---------|------|---------|
| 170      | 2600 mm | 1700 mm | 1300 mm | -    | 2500 mm |
| 190      | 3250 mm | 2350 mm | 2000 mm | -    | 3000 mm |
| 210      | 3500 mm | 2900 mm | 2600 mm | -    | 3000 mm |

**Maximum order height per box size - NA-RO inspection from inside**

| Box sizes | A 36    | A 44    | A 53    | S 37 | K 36    | K 52    |
|-----------|---------|---------|---------|------|---------|---------|
| 240x250   | 3250 mm | 2300 mm | 1700 mm | -    | 3000 mm | 2300 mm |
| 300x250   | 3250 mm | 2300 mm | 1700 mm | -    | 3000 mm | 2300 mm |
| 300x300   | 3500 mm | 3500 mm | 3100 mm | -    | 3000 mm | 2800 mm |
| 365x250   | 3250 mm | 2300 mm | 1700 mm | -    | 3000 mm | 2300 mm |
| 365x300   | 3500 mm | 3500 mm | 3100 mm | -    | 3000 mm | 2800 mm |

**Maximum order height per box size - NA-RO inspection from inside with sound insulation package**

| Box sizes | A 36    | A 44    | A 53    | S 37 | K 36    | K 52    |
|-----------|---------|---------|---------|------|---------|---------|
| 240x250   | 2800 mm | 2000 mm | 1700 mm | -    | 2800 mm | 2000 mm |
| 300x250   | 2800 mm | 2000 mm | 1700 mm | -    | 2800 mm | 2000 mm |
| 300x300   | 3500 mm | 3500 mm | 3100 mm | -    | 3000 mm | 2800 mm |
| 365x250   | 3250 mm | 2300 mm | 2000 mm | -    | 3000 mm | 2300 mm |
| 365x300   | 3500 mm | 3500 mm | 3100 mm | -    | 3000 mm | 2800 mm |

**Maximum order height per box size - NA-RO inspection from outside**

| Box sizes | A 36    | A 44    | A 53    | S 37 | K 36    | K 52    |
|-----------|---------|---------|---------|------|---------|---------|
| 240x250   | 3250 mm | 2300 mm | 2000 mm | -    | 3000 mm | 2300 mm |
| 300x250   | 3250 mm | 2300 mm | 2000 mm | -    | 3000 mm | 2300 mm |
| 300x300   | 3500 mm | 3500 mm | 3100 mm | -    | 3000 mm | 2800 mm |
| 365x250   | 3250 mm | 2300 mm | 2000 mm | -    | 3000 mm | 2300 mm |
| 365x300   | 3500 mm | 3500 mm | 3100 mm | -    | 3000 mm | 2800 mm |

**Maximum order height per box size - Top-mounted roller shutters AU-RO**

| Box sizes | A 36    | A 44    | A 53    | K 36    | K 52    |
|-----------|---------|---------|---------|---------|---------|
| 175       | 1500 mm | 1000 mm | 800 mm  | 1500 mm | 1000 mm |
| 200       | 2600 mm | 1800 mm | 1500 mm | 2400 mm | 1700 mm |
| 240       | 3500 mm | 2800 mm | 2400 mm | 3000 mm | 2700 mm |

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Front-mounted  
roller shutters

Top-mounted  
roller shutters

Shaft  
roller  
shutters

**Supplementary  
accessories**

Components

Drive  
variants

Standards



## Supplementary accessories

### Battery module UP

#### Compact

Compact design for installation in a flush-mounted box

#### Safe

In an emergency, the Battery module UP ensures safe raising of the sun shading product with a direct current drive.

#### Open routes

The battery pack guarantees an unobstructed emergency route outside, even in case of power failure

#### Can be used for:

- Front-mounted roller shutter V4
- Front-mounted roller shutter V6
- Front-mounted roller shutter V10
- Top-mounted roller shutters for new buildings NA-RO inspection from inside



#### Construction limit values

Maximum order area 6.1 m<sup>2</sup>



#### Product characteristics

- Ideal for use in buildings with two emergency routes
- Opening speed approx. 33 seconds



## Components



1 Storage battery 2 Battery module UP

## Product characteristics

### Intended use

The Battery module UP is a storage battery solution that ensures that the sun shading product can be raised, even during a power failure.

The Battery module UP includes:

- 12 volt DC motor
- Motor line (different version depending on the support product)
- Storage battery
- Motor control unit

The components and cable connections are intended for installing a double installation box.

### Function

The support product is generally powered by a 12-volt drive and is supplied with power by the storage battery.

The storage battery is charged once the mains voltage is connected. The 230 volt mains voltage is only used to supply the battery with power during operation. Once the storage battery is charged, the system is ready for operation. During operation, power is generally supplied to the sun shading drive by the storage battery. The charge status of the battery is constantly monitored and the battery is recharged when necessary.

The storage battery must be replaced after 1000 cycles or after 2 years at the latest. Corresponding signal tones are active in delivery condition and can be deactivated by flipping the encoding switch. Only floating contacts may be used to control the motor. The connection of a 230 volt output leads to the destruction of the module.

### Features at a glance:

- Jog mode or continuous mode can be chosen
- Lock mode approx. 180 seconds, stop with opposite button
- Change battery alarm after 1000 cycles or 2 years
- Acknowledgeable battery undervoltage alarm
- Number of cycles when mains voltage fails depending on the element size and run time of the sun shading product
- Charging specification for Li-ion battery
- Individual operating input/central operating input/ smoke alarm interface

- Can be installed in: UP electronics box or double hollow wall box
  - Rated voltage 230 V, 50 Hz, standby power < 300 mW
- In accordance with our installation and operating instructions, we require annual maintenance.

## Notes

### Note on use with roller shutters:

- Motor line: Maximum length: 2500 mm; incl. plug connector; maximum protrusion out of the box 2000 mm
- Roller shutter drive 12 V, DC, 5 A
- The time required to move roller shutters with the battery module UP per 2500 mm of height is approx. 40 seconds. (Reference value for model with A 36 profile)

### Type-dependent limitations:

NA-RO inspection from inside:

- Not possible with guide rail offset
- Not in connection with box extension

## Legal information

### The following regulations apply to Germany:

For buildings used solely in a private capacity, the kit can be used on a secondary emergency route, provided that the person responsible for fire safety under the applicable Landesbauordnung [German building regulations for the respective Federal State] (Section 66 of the Musterbauordnung [German building regulations for the standardisation of regional state building regulations] (MBO)) has inspected and approved the individual application.

### WARNING

As there are no legal standards concerning the shading of escape and emergency routes with sun shading products, the use of a WAREMA Battery module UP must, taking the fire protection concept into account, be clarified with the responsible body (e.g. Section 66 of the MBO [German building regulations for the standardisation of regional state building regulations]) and must be approved by this body. Product details can be found in the current technical documentation.

### The following applies to the rest of the EU and Switzerland:

Compliance with legal provisions and country-specific regulations on site is the responsibility of the ordering party. There may be regional regulations and conditions that prohibit the use of electrically operated sun shading systems with the battery module UP. However, these cannot be investigated by WAREMA in every case.

## Dimension determination

### Maximum drive area in m<sup>2</sup>

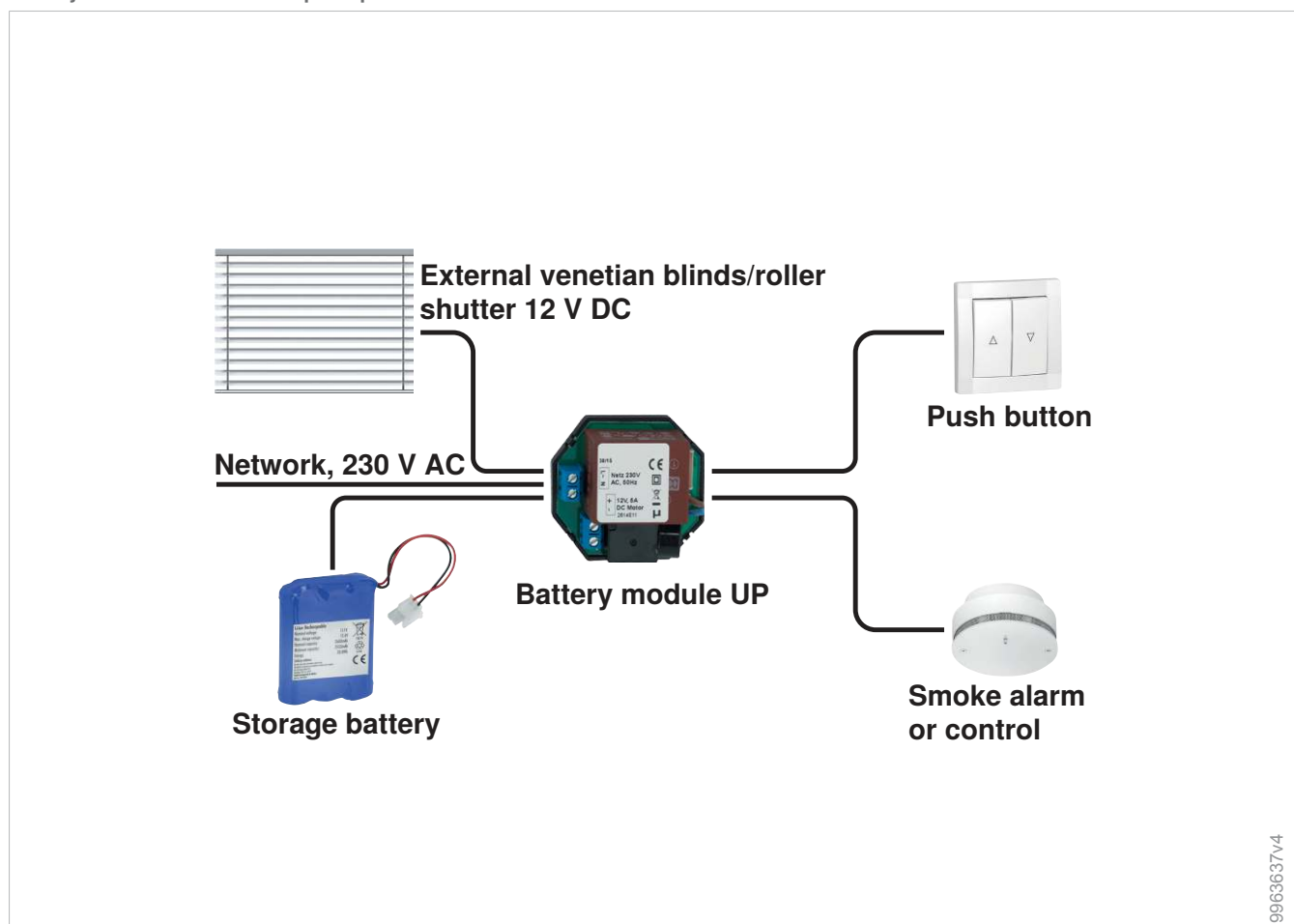
| Roller shutter curtain | Maximum drive area |
|------------------------|--------------------|
| A 36                   | 6.1 m <sup>2</sup> |
| A 44                   | 5.4 m <sup>2</sup> |
| A 53                   | 4.2 m <sup>2</sup> |
| S 37                   | 2.3 m <sup>2</sup> |
| K 36                   | 5.9 m <sup>2</sup> |
| K 52                   | 3.3 m <sup>2</sup> |

### Minimum order width depending on support product and model

| Model                                                                                                    | Minimum order width |
|----------------------------------------------------------------------------------------------------------|---------------------|
| Front-mounted roller shutters                                                                            | 570 mm              |
| Front-mounted roller shutter with insect screen roller blind with soft-raise function                    | 710 mm              |
| Front-mounted roller shutter with insect screen roller blind without soft-raise function                 | 570 mm              |
| Top-mounted roller shutters for new buildings                                                            | 585 mm              |
| Top-mounted roller shutter for new buildings with insect screen roller blind with soft-raise function    | 750 mm              |
| Top-mounted roller shutter for new buildings with insect screen roller blind without soft-raise function | 580 mm              |

## Details

### Battery module UP functional principle



## Further information

TechDataPLUS Supplementary accessories for roller shutters  
<https://docs.warema.com/1.1317.3>







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Shaft roller shutters

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## Components

### Roller shutter curtain

#### Versatile

Roller shutter curtains are available in various materials and profile heights depending on requirements.

#### Reliable

Lowered roller shutter curtains reliably protect rooms from overheating and also provide effective cold protection in the cold months.

#### Attractive

Can be designed in both classic and in modern colours.



#### Product characteristics

- The right profile for any requirement
- Laterally locked for a safe run
- Printed model available on request

## Product characteristics

- **Light slits:** Roller shutter curtain with light slits as standard, alternatively without light slits. S 37, however, comes without light slit as standard.
- **Locking mechanism:** Different models depending on the type of roller shutter curtain. S 37, however, generally comes without locking mechanism.
- **Fixing of the roller shutter curtain on the shaft:** Using steel pressure springs (exception S 37 - directly screwed onto the shaft in this instance)
- **Coloured end rails:** In accordance with the standard colour allocation, see chapter "Planning"
- **End rail sealing strip:** Standard model without, generally included with K 52 and K 55
- **End rail limit stop:** Included with manual drives

If an attempt is made to raise the shutter when it is lowered, the pressure springs ensure the roller shutter curtain is supported in the direction of the box and thus prevents it from being raised any further.

## Construction limit values

### Maximum order area per operating class

| Configuration variants                         | Operating classes   |                    |                    |
|------------------------------------------------|---------------------|--------------------|--------------------|
|                                                | Design-related      | Operating class 1  | Operating class 2  |
| <b>Roller shutter curtain + Drive variants</b> |                     |                    |                    |
| A 36 + Motor                                   | 25,3 m <sup>2</sup> |                    |                    |
| A 44 + Motor                                   | 22,6 m <sup>2</sup> |                    |                    |
| A 53 + Motor                                   | 21,2 m <sup>2</sup> |                    |                    |
| A 56 + Motor                                   | 13,2 m <sup>2</sup> |                    |                    |
| S 37 + Motor                                   | 10,5 m <sup>2</sup> |                    |                    |
| K 36 + Motor                                   | 22,7 m <sup>2</sup> |                    |                    |
| K 52 + Motor                                   | 14,3 m <sup>2</sup> |                    |                    |
| K 55 + Motor                                   | 14,3 m <sup>2</sup> |                    |                    |
| A 36 + Crank (for on-site lintel boxes)        | 8 m <sup>2</sup>    | 8 m <sup>2</sup>   | 5,5 m <sup>2</sup> |
| A 44 + Crank (for on-site lintel boxes)        | 7,5 m <sup>2</sup>  | 7,5 m <sup>2</sup> | 5 m <sup>2</sup>   |
| A 53 + Crank (for on-site lintel boxes)        | 7 m <sup>2</sup>    | 7 m <sup>2</sup>   | 4,7 m <sup>2</sup> |
| A 56 + Crank (for on-site lintel boxes)        | 4,3 m <sup>2</sup>  | 4,3 m <sup>2</sup> | 3 m <sup>2</sup>   |
| S 37 + Crank (for on-site lintel boxes)        | 2,9 m <sup>2</sup>  | 2,9 m <sup>2</sup> | 2 m <sup>2</sup>   |
| K 36 + Crank (for on-site lintel boxes)        | 7,5 m <sup>2</sup>  | 7,5 m <sup>2</sup> | 5 m <sup>2</sup>   |
| K 52 + Crank (for on-site lintel boxes)        | 5,4 m <sup>2</sup>  | 5,4 m <sup>2</sup> | 3,7 m <sup>2</sup> |
| K 55 + Crank (for on-site lintel boxes)        | 5,4 m <sup>2</sup>  | 5,4 m <sup>2</sup> | 3,7 m <sup>2</sup> |
| A 36 + Belt 23 mm (for on-site lintel boxes)   | 6,8 m <sup>2</sup>  | 3,7 m <sup>2</sup> | 2 m <sup>2</sup>   |
| A 44 + Belt 23 mm (for on-site lintel boxes)   | 6,2 m <sup>2</sup>  | 3,4 m <sup>2</sup> | 1,9 m <sup>2</sup> |
| A 53 + Belt 23 mm (for on-site lintel boxes)   | 5,8 m <sup>2</sup>  | 3,2 m <sup>2</sup> | 1,8 m <sup>2</sup> |
| A 56 + Belt 23 mm (for on-site lintel boxes)   | 3,6 m <sup>2</sup>  | 2 m <sup>2</sup>   | 1,1 m <sup>2</sup> |
| S 37 + Belt 23 mm (for on-site lintel boxes)   | 2,4 m <sup>2</sup>  | 1,3 m <sup>2</sup> | 0,7 m <sup>2</sup> |
| K 36 + Belt 23 mm (for on-site lintel boxes)   | 6,2 m <sup>2</sup>  | 3,4 m <sup>2</sup> | 1,9 m <sup>2</sup> |
| K 52 + Belt 23 mm (for on-site lintel boxes)   | 4,5 m <sup>2</sup>  | 2,5 m <sup>2</sup> | 1,4 m <sup>2</sup> |
| K 55 + Belt 23 mm (for on-site lintel boxes)   | 4,5 m <sup>2</sup>  | 2,5 m <sup>2</sup> | 1,4 m <sup>2</sup> |
| A 36 + Step-up gear, belt 23 mm                | 14,3 m <sup>2</sup> | 7,5 m <sup>2</sup> | 3,8 m <sup>2</sup> |
| A 44 + Step-up gear, belt 23 mm                | 13,3 m <sup>2</sup> | 7 m <sup>2</sup>   | 3,5 m <sup>2</sup> |
| A 53 + Step-up gear, belt 23 mm                | 12,5 m <sup>2</sup> | 6,5 m <sup>2</sup> | 3,3 m <sup>2</sup> |
| A 56 + Step-up gear, belt 23 mm                | 7,7 m <sup>2</sup>  | 4 m <sup>2</sup>   | 2 m <sup>2</sup>   |
| S 37 + Step-up gear, belt 23 mm                | 5,2 m <sup>2</sup>  | 2,7 m <sup>2</sup> | 1,4 m <sup>2</sup> |
| K 36 + Step-up gear, belt 23 mm                | 13,3 m <sup>2</sup> | 7 m <sup>2</sup>   | 3,5 m <sup>2</sup> |
| K 52 + Step-up gear, belt 23 mm                | 9,6 m <sup>2</sup>  | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |
| K 55 + Step-up gear, belt 23 mm                | 9,6 m <sup>2</sup>  | 5 m <sup>2</sup>   | 2,5 m <sup>2</sup> |

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

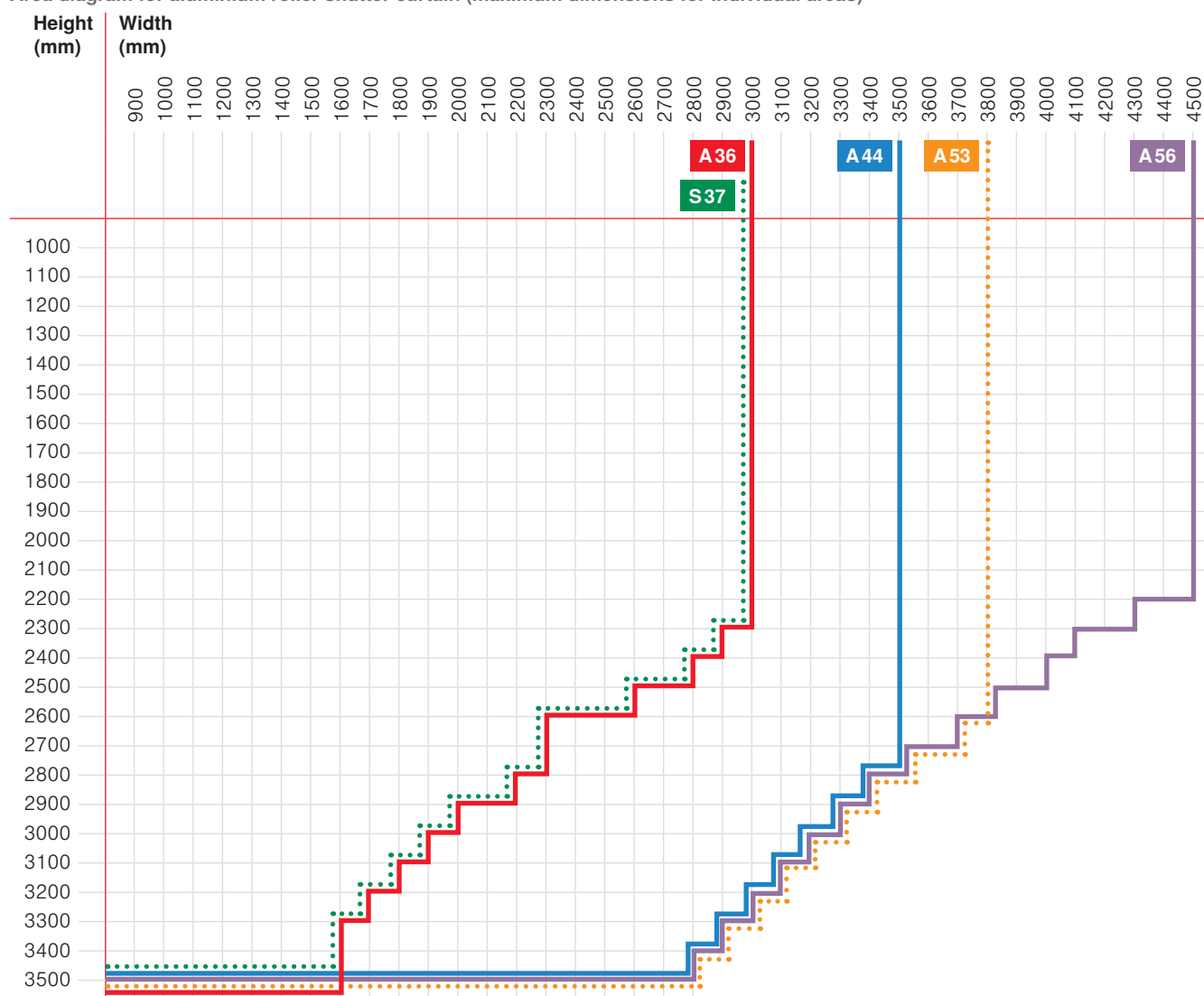
Supplementary accessories

Components

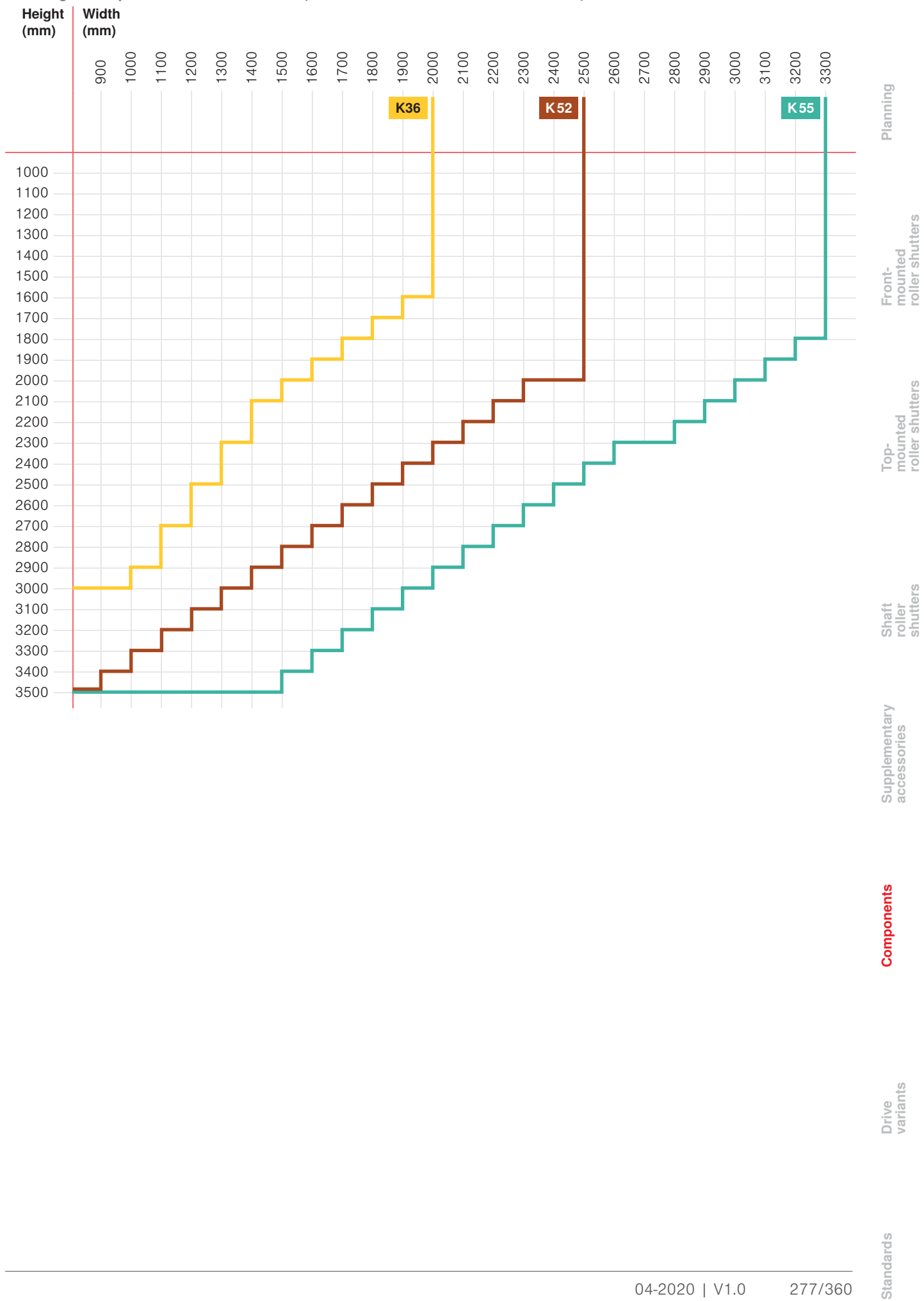
Drive variants

Standards

Area diagram for aluminium roller shutter curtain (maximum dimensions for individual areas)



Area diagram for plastic roller shutter curtain (maximum dimensions for individual areas)



## Additional product information

### Maximum order width per wind resistance class

#### Wind resistance classes 0-6

| Configuration variant  | 0       | 1       | 2       | 3       | 4       | 5       | 6       | Guide rail          |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------------------|
| Roller shutter curtain |         |         |         |         |         |         |         |                     |
| A 36                   | 3000 mm | 2780 mm | 2705 mm | 2560 mm | 2265 mm | 1825 mm | 1500 mm | 30-19, 30-25, 38-41 |
| A 44                   | 3500 mm | 3295 mm | 3200 mm | 3010 mm | 2625 mm | 2055 mm | 1600 mm | 30-19, 30-25, 38-41 |
| A 53                   | 3800 mm | 3635 mm | 3545 mm | 3370 mm | 3020 mm | 2490 mm | 1790 mm | 30-25, 30-28, 38-41 |
| A 56                   | 4500 mm | 3900 mm | 3775 mm | 3535 mm | 3050 mm | 2330 mm | 1360 mm | 30-25, 30-28        |
| S 37                   |         |         |         | 3000 mm | 2790 mm | 2375 mm | 1820 mm | 30-25, 38-41        |
| K 36                   | 2000 mm | 1750 mm | 1600 mm | 1400 mm | 1200 mm | 1000 mm | 900 mm  | 30-19, 30-25, 38-41 |
| K 52                   | 2500 mm | 2355 mm | 2285 mm | 2140 mm | 1855 mm | 1425 mm | 850 mm  | 30-28, 38-41        |
| K 55                   | 3300 mm | 3125 mm | 2825 mm | 2220 mm | 1015 mm |         |         | 30-28               |

**Order width for each wind resistance class:** Applies to use of indicated guide rails.

**Changing the wind resistance class:** Switching to guide rails 40-28 and 60-28 (A 53/A 56/K 52/55) improves the wind resistance class by one class.

Switching to guide rails 20-19 or 28-19 (K 52/55) downgrades the wind resistance class by one class.

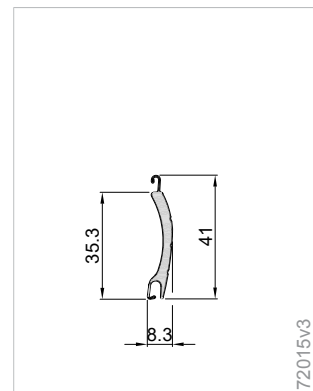
# Aluminium shutter profiles, foam filled

## A 36

|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| Maximum order width                        | 3000 mm                               |
| Maximum order height                       | 3500 mm                               |
| Maximum order area                         | 7 m <sup>2</sup>                      |
| Surface weight                             | 2.7 kg/m <sup>2</sup>                 |
| Material                                   | Aluminium, double-walled, foam filled |
| Surface                                    | Enamelled                             |
| Number of profiles per metre with end rail | 28                                    |

The weights do not include end rails.

Profile A 36, mini profile



Planning

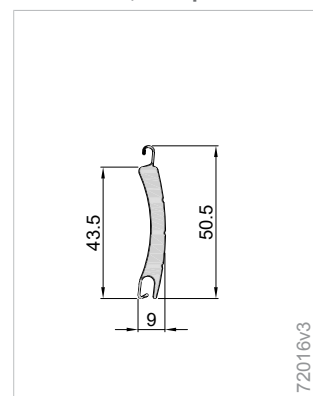
Front-mounted roller shutters

## A 44

|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| Maximum order width                        | 3500 mm                               |
| Maximum order height                       | 3500 mm                               |
| Maximum order area                         | 10.0 m <sup>2</sup>                   |
| Surface weight                             | 2.9 kg/m <sup>2</sup>                 |
| Material                                   | Aluminium, double-walled, foam filled |
| Surface                                    | Enamelled                             |
| Number of profiles per metre with end rail | 23                                    |

The weights do not include end rails.

Profile A 44, mini profile



Top-mounted roller shutters

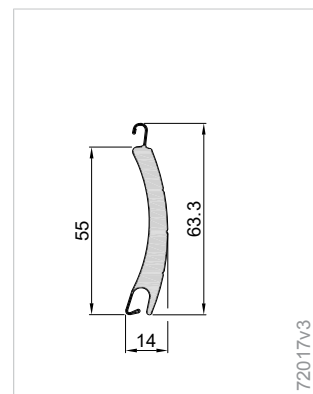
Shaft roller shutters

## A 53

|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| Maximum order width                        | 3800 mm                               |
| Maximum order height                       | 3500 mm                               |
| Maximum order area                         | 8.0 m <sup>2</sup>                    |
| Surface weight                             | 3.1 kg/m <sup>2</sup>                 |
| Material                                   | Aluminium, double-walled, foam filled |
| Surface                                    | Enamelled                             |
| Number of profiles per metre with end rail | 18                                    |

The weights do not include end rails.

Profile A 53, maxi-profile



Supplementary accessories

Components

Drive variants

Standards

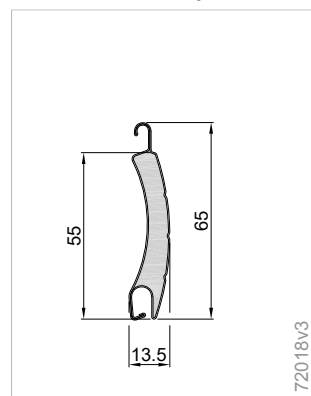


## A 56

|                                            |                                       |
|--------------------------------------------|---------------------------------------|
| Maximum order width                        | 4500 mm                               |
| Maximum order height                       | 3500 mm                               |
| Maximum order area                         | 10.0 m <sup>2</sup>                   |
| Surface weight                             | 5.0 kg/m <sup>2</sup>                 |
| Material                                   | Aluminium, double-walled, foam filled |
| Surface                                    | Enamelled                             |
| Number of profiles per metre with end rail | 18                                    |

The weights do not include end rails.

Profile A 56, maxi-profile



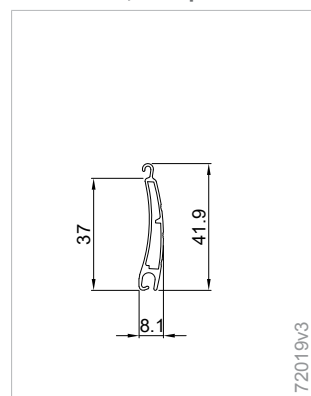
## Aluminium shutter profiles, extruded

### S 37

|                                            |                                    |
|--------------------------------------------|------------------------------------|
| Maximum order width                        | 3000 mm                            |
| Maximum order height                       | 3500 mm                            |
| Maximum order area                         | 7.0 m <sup>2</sup>                 |
| Surface weight                             | 6.3 kg/m <sup>2</sup>              |
| Material                                   | Aluminium, double-walled, extruded |
| Surface                                    | Powder-coated                      |
| Number of profiles per metre with end rail | 26                                 |

- The weights do not include end rails.
- Couplings are not possible when profile S 37 is used.

Profile S 37, mini profile



## Plastic roller shutter profiles

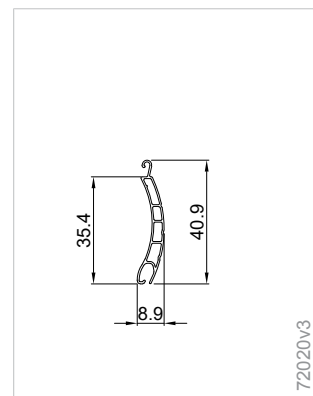
Plastic roller shutter curtains should not be lowered all the way to the lower limit position in summer. The light slits of the roller shutter curtain should remain visible. If the roller shutter should be completely closed, even in the event of intense solar radiation in the summer, we strongly recommend the use of aluminium roller shutters.

### K 36

|                                            |                        |
|--------------------------------------------|------------------------|
| Maximum order width                        | 2000 mm                |
| Maximum order height                       | 3000 mm                |
| Maximum order area                         | 10.0 m <sup>2</sup>    |
| Surface weight                             | 2.9 kg/m <sup>2</sup>  |
| Material                                   | Plastic, double walled |
| Surface                                    | Plastic                |
| Number of profiles per metre with end rail | 28                     |

The weights do not include end rails.

Profile K 36, mini profile

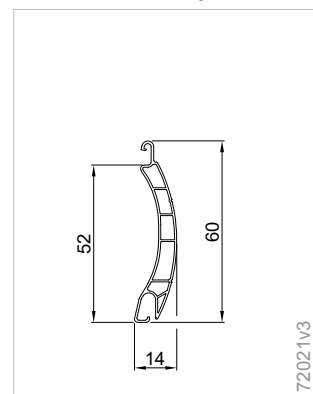


### K 52

|                                            |                        |
|--------------------------------------------|------------------------|
| Maximum order width                        | 2500 mm                |
| Maximum order height                       | 3500 mm                |
| Maximum order area                         | 4.5 m <sup>2</sup>     |
| Surface weight                             | 4.0 kg/m <sup>2</sup>  |
| Material                                   | Plastic, double walled |
| Surface                                    | Plastic                |
| Number of profiles per metre with end rail | 19                     |

The weights do not include end rails.

Profile K 52, maxi-profile

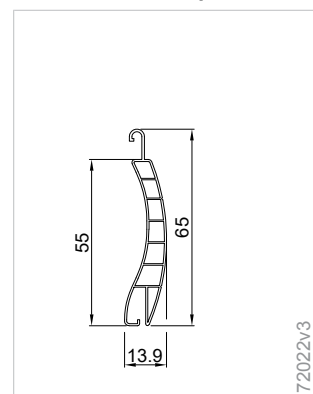


### K 55

|                                            |                        |
|--------------------------------------------|------------------------|
| Maximum order width                        | 3300 mm                |
| Maximum order height                       | 3500 mm                |
| Maximum order area                         | 6.0 m <sup>2</sup>     |
| Surface weight                             | 4.0 kg/m <sup>2</sup>  |
| Material                                   | Plastic, double walled |
| Surface                                    | Plastic                |
| Number of profiles per metre with end rail | 18                     |

The weights do not include end rails.

Profile K 55, maxi-profile



Planning

Front-mounted roller shutters

Top-mounted roller shutters

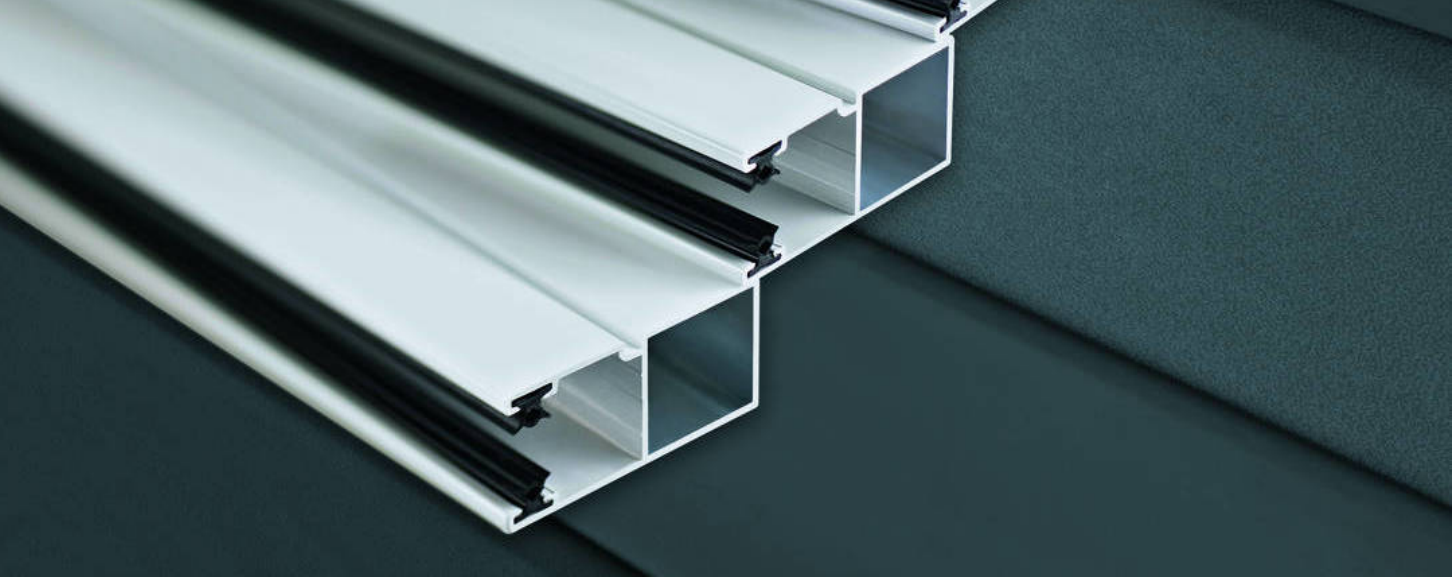
Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



## Guide variants

### Guide rails

#### Safely guided

Guide rails are the lateral guidance for roller shutters. The guide rails on both sides serve to guide the roller shutter curtain when raising and lowering.

#### Various qualities

Guide rails are available in aluminium or plastic variants and in various shapes depending on the roller shutter type or requirements.

#### Colour-coordinated

We supply plastic cover plugs for the drilled guide rail holes, which are colour coordinated to the colour of the guide rails.



#### ☒ Produkteigenschaften

- Bead available in different models
- Single and middle rails available
- Special processing options available

# Guide rails for front-mounted roller shutters

## Guide rail 46-25

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

- Guide rails with a reduced visible width
- Wind resistance class decreases by one class
- Observe width restrictions: max. 1500 mm for plastic curtains, max. 1800 mm for aluminium curtains
- Not compatible with A 44, A 53 and S 37
- Mixed orders with size 46 and 55 guide rails are delivered together with brush seals V4, V6.

Bead:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

## Guide rail 55-25

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

With integrated groove for water tightness in driving rain as standard (for test report see [www.warema.com](http://www.warema.com)).

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045
- PE bead for profile S 37, art. no. 301093

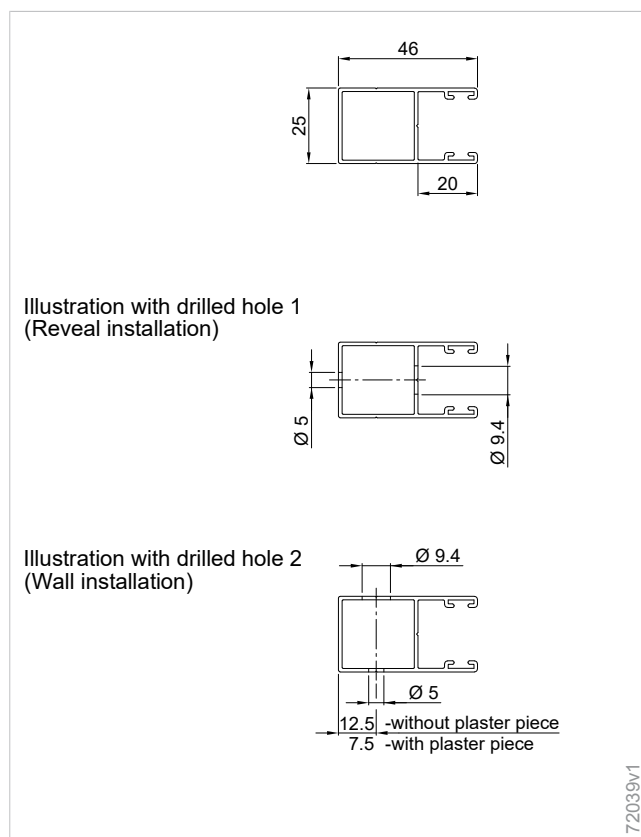
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

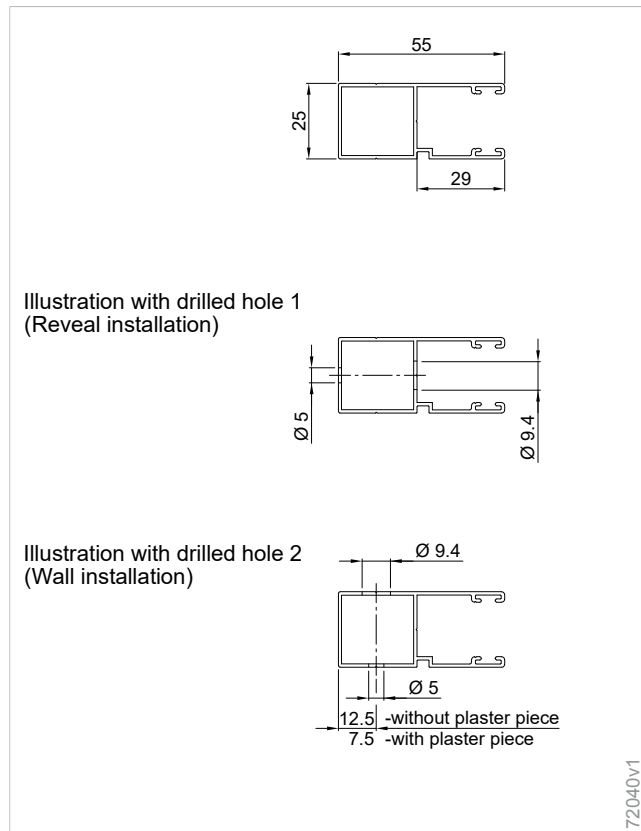
End closure, optional:

- End closure, internal
- End closure with aluminium cover, powder-coated

## Guide rail 46-25



## Guide rail 55-25



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

### Middle rail 67-25

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Powder-coated       |
| Optional surface | Anodised            |

Bead:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

### Middle rail 85-25

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal
- End closure with aluminium cover, powder-coated

### Guide rail 67-25

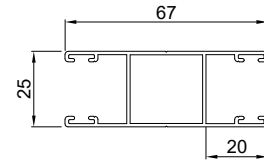
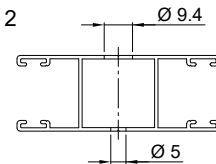


Illustration with drilled hole 2  
(Wall installation)



72041v1

### Guide rail 85-25

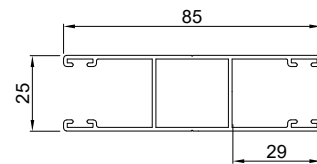
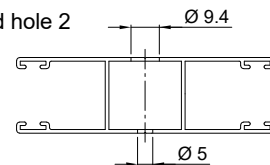


Illustration with drilled hole 2  
(Wall installation)



72042v1

### Guide rail 55-47

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

- The distance of the guide rail enables an insect screen product to be retrofitted at a later time.
- Guide rail 55-47 can be used with profiles A 36, K 36 and only from box size 150.
- Guide rail 55-47 only possible in conjunction with a flat end rail
- Please note the restrictions to maximum order heights for each box size when using the guide rail 55-47.

#### Bead:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

#### End closure, optional:

- End closure, internal

### Middle rail 84-47

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

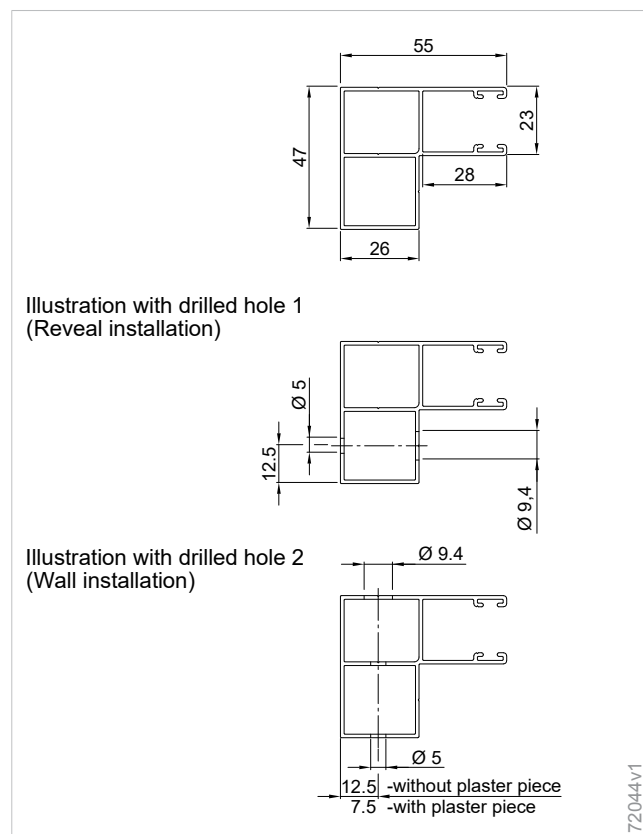
#### Bead:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

#### End closure, optional:

- End closure, internal

### Guide rail 55-47

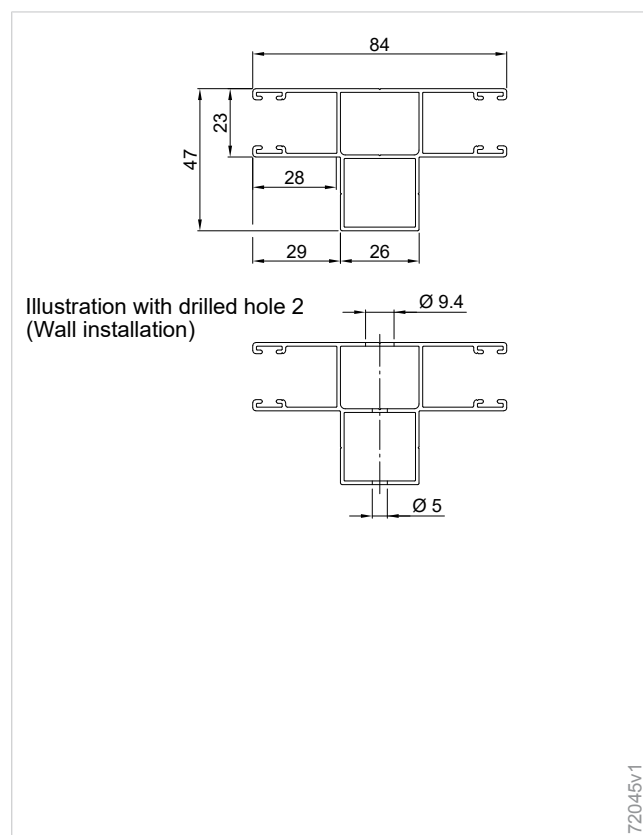


Planning

Front-mounted roller shutters

Top-mounted roller shutters

### Guide rail 84-47



Shaft roller shutters

Supplementary accessories

Components

Drive variants

### Guide rail 55-46

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

For model with integrated insect screen roller blind

Bead:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

### Guide rail 55-48

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal
- External end closure

### Guide rail 55-46

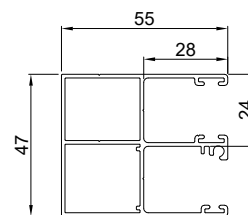


Illustration with drilled hole 1  
(Reveal installation)

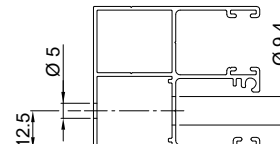
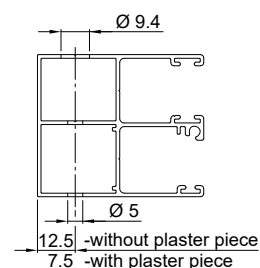


Illustration with drilled hole 2  
(Wall installation)



72047/v1

### Guide rail 55-48

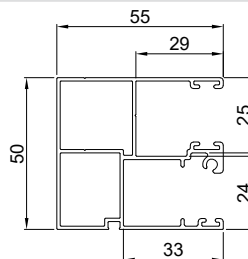


Illustration with drilled hole 1  
(Reveal installation)

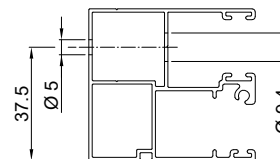
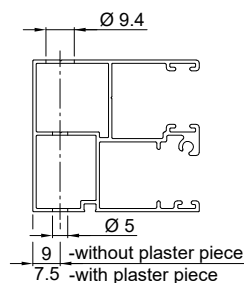


Illustration with drilled hole 2  
(Wall installation)



72103

## Middle rail 84-48

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Powder-coated       |
| Optional surface | Anodised            |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

## Guide rail 55-52

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093

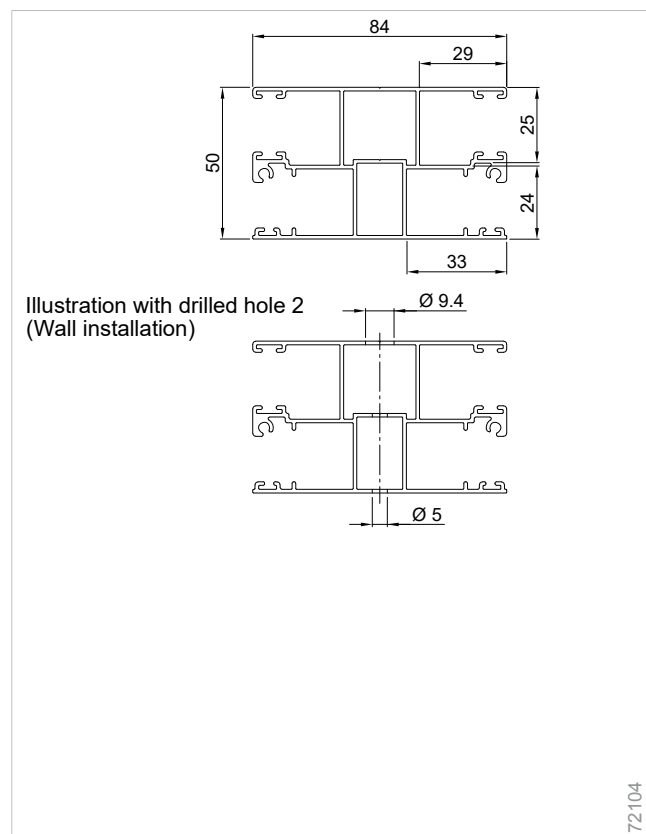
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

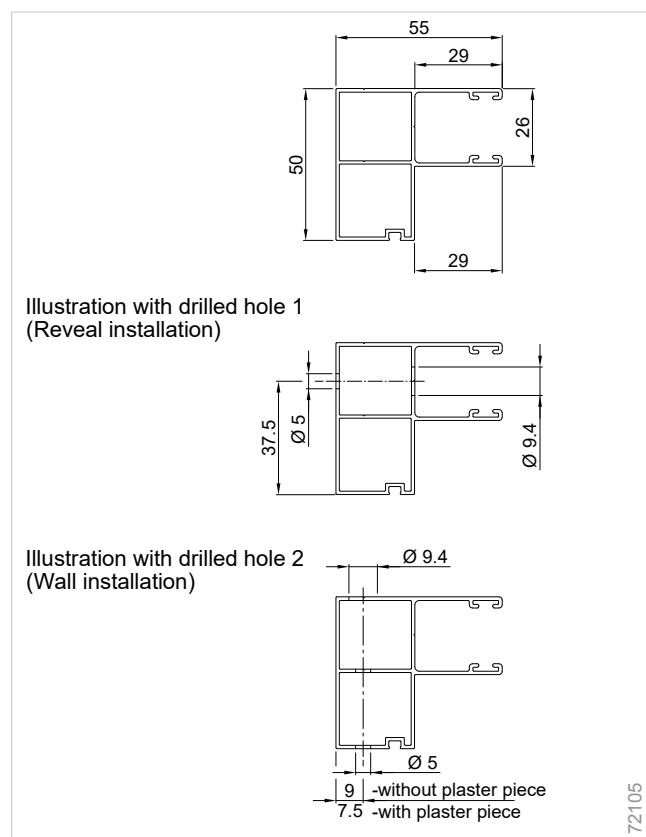
End closure, optional:

- End closure, internal

## Guide rail 84-48



## Guide rail 55-52





### Middle rail 85-52

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Powder-coated       |
| Optional surface | Anodised            |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

### Guide rail 37-25 (Minimax guide rail)

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Powder-coated       |
| Optional surface | Anodised            |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203

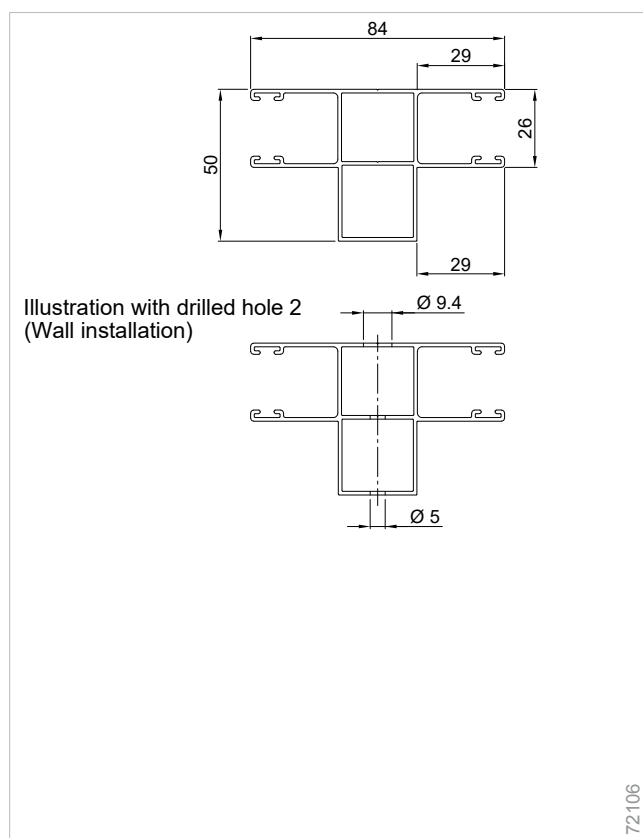
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

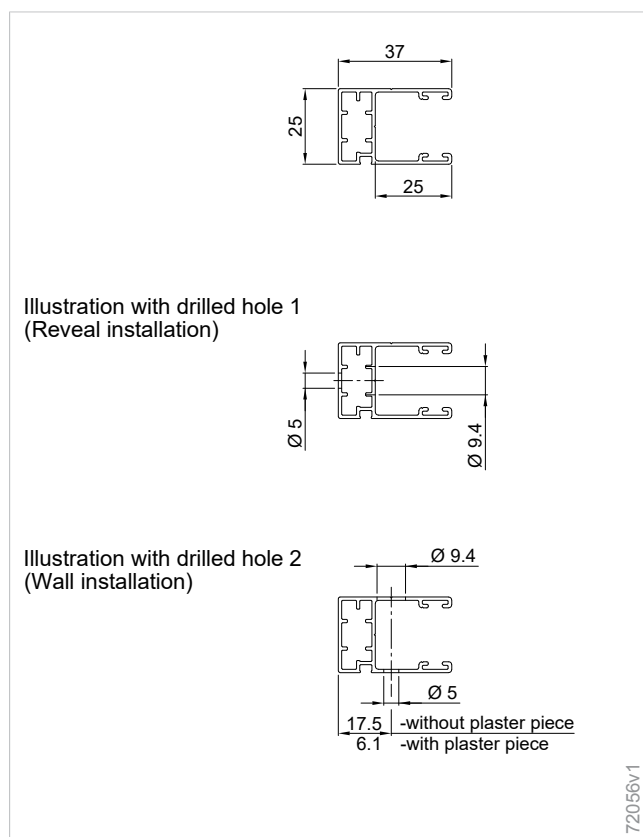
End closure, optional:

- End closure, internal

### Guide rail 85-52



### Guide rail 37-25



## Guide rail 37-46 (Minimax guide rail)

|                  |                     |
|------------------|---------------------|
| Material         | Aluminium, extruded |
| Surface          | Powder-coated       |
| Optional surface | Anodised            |

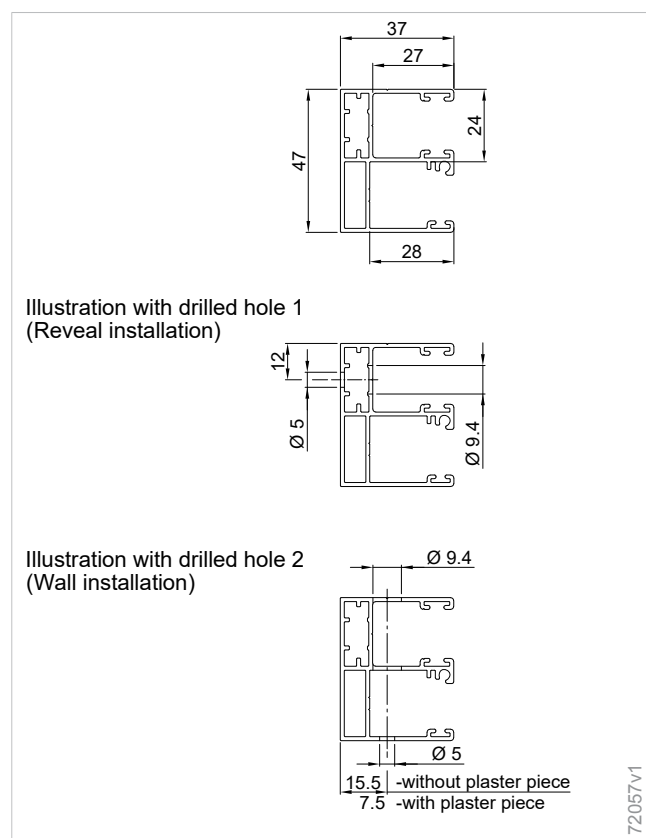
### Bead:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

### End closure, optional:

- End closure, internal

## Guide rail 37-46



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

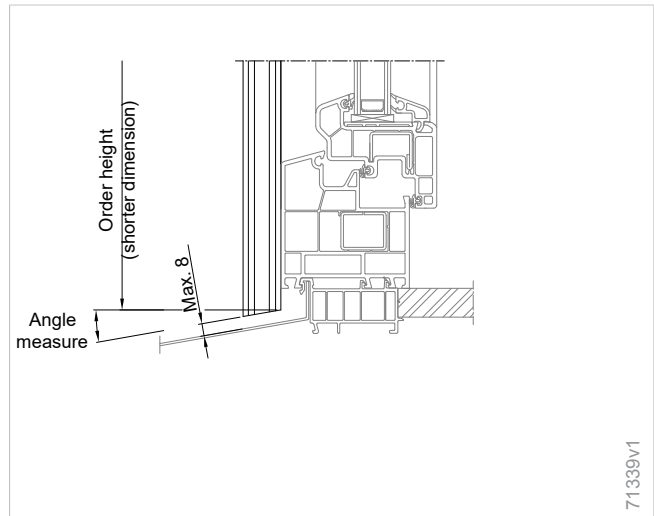
## Additional product information

### Front-mounted roller shutter, guide rails sloped at the bottom

Optically matches the guide rail to the inclination of the window sill.

- Please specify the degree of inclination of the angled cut when ordering
- Optional internal end closure available

#### Guide rails sloped at the bottom (optional)



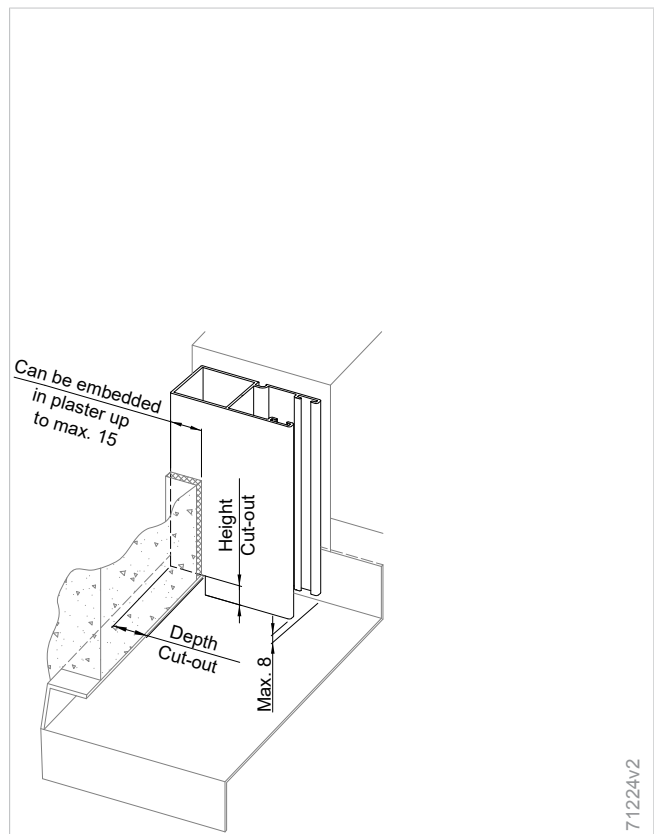
### Front-mounted roller shutter, guide rails with cut-out

Cut-out for connecting the guide rails to the window sill profile.

#### Cut-out recommendation:

- A cut-out in the sill profile instead of a cut-out in the guide rail to allow driving rain and condensation to flow off easily.
- An additional cut-out in the guide rails should only be made if the leak tightness to the insulation and plaster on-site is guaranteed and water can reliably run off the window sill.
- Adequate deduction measurements for manufacture and installation tolerances must be taken into account. A distance of max. 8 mm must be included in the design in order to prevent loads on the window sill caused by thermal expansion.

#### Guide rails with cut-out (optional)

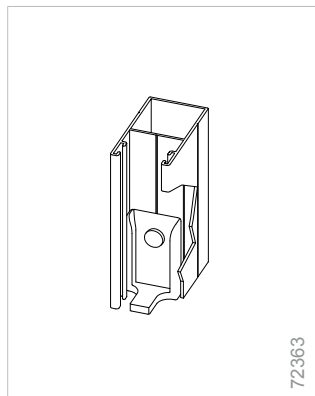


## End closures for guide rails

Lower roller shutter curtain end point via end closure in the guide rails, if no window sill exists.

- End closures are not included in the standard scope of delivery and have to be specified separately on the order.
- If no request is made, we will assume that an internal end closure is required.

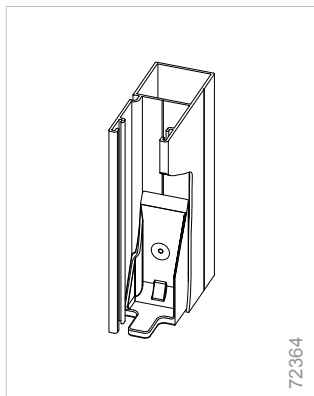
Standard end closure, internal



Art. no. 314136

Can be used for: Guide rail 46-25, 67-25, 46-35

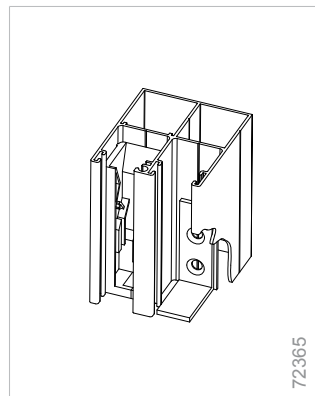
Standard end closure, internal



Art. no. 2007678 (left), 2007679 (right)

Can be used for: Guide rail 55-25, 85-25, 80-25, 55-35, 85-35, 55-45, 55-65, 55-75, 55-85, guide rail 55-48, 84-48, 55-52, 85-52, 60-48

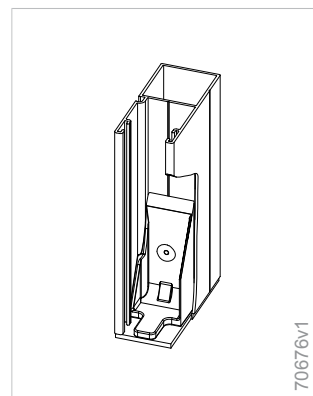
Standard end closure, internal



Art. no. 520116

Can be used for: Guide rail 55-47, 84-47, 55-46, 37-25, 37-46, 60-25, 60-47

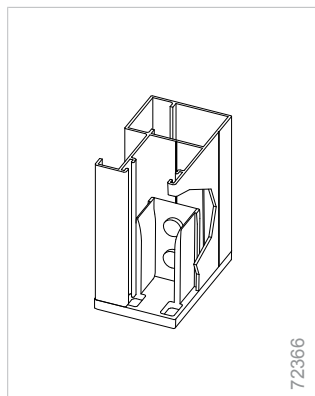
External cover panel, powder-coated, for internal end closure



Art. no. 2009628, can be used for guide rail 55-25

Art. no. 2010471, can be used for guide rail 85-25

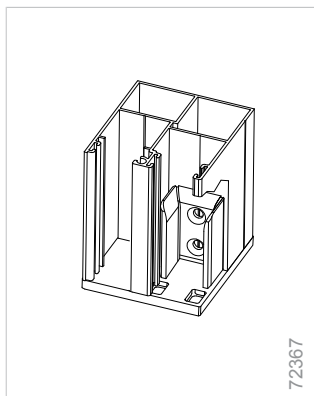
Special end closure



Art. no. 314026 (left), art. no. 314027 (right), can be used for guide rail 55-35

When measuring, take 5 mm protrusion into account.

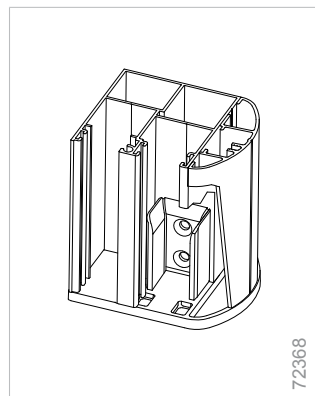
Special end closure



Art. no. 314098 (left), art. no. 314099 (right), can be used for guide rail 55-48, 55-52

When measuring, take 5 mm protrusion into account.

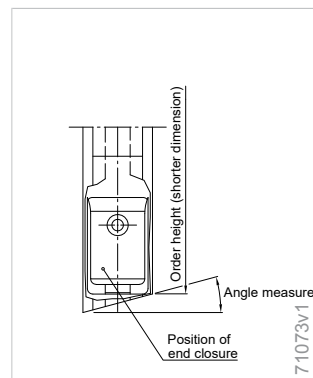
Special end closure



Art. no. 314093 (left), art. no. 314094 (right), can be used for guide rail 55-48 and 55-52 with half-round cover

When measuring, take 5 mm protrusion into account.

End closure position for guide rails with sloped cut



# Guide rails for NA-RO inspection from inside and top-mounted roller shutters AU-RO

## Plastic guide rails

### Guide rail 60-51 or 66-51

|                  |                   |
|------------------|-------------------|
| Material         | Plastic, extruded |
| Surface          | Plastic           |
| Optional surface | Laminated         |
| Material colour  | White             |

Without offset

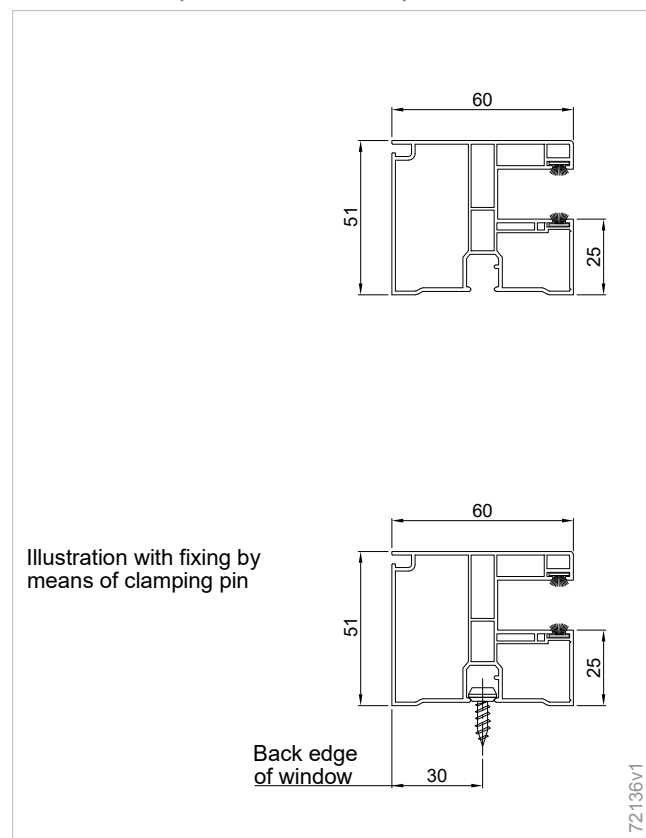
Bead:

- Integrated brush seal, grey

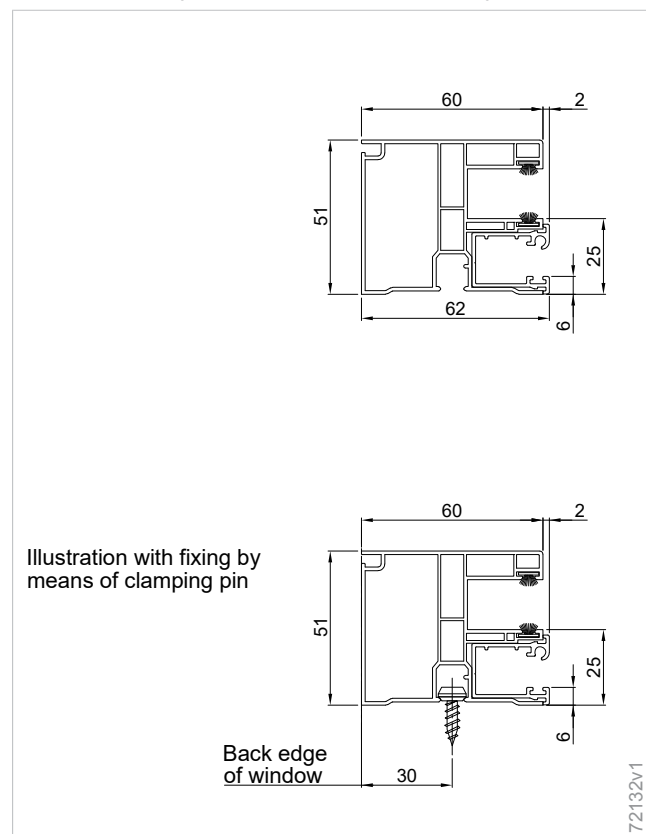
End closure, optional:

- End closure, internal

### Guide rail 60-51 (without insect screen)



### Guide rail 66-51 (with insect screen roller blind)



## Guide rail 35-51

|                  |                   |
|------------------|-------------------|
| Material         | Plastic, extruded |
| Surface          | Plastic           |
| Optional surface | Laminated         |
| Material colour  | White             |

**Observe offset:** The offset is 25 mm to the back edge of the window profile as standard

Bead:

- Integrated brush seal, grey

End closure, optional:

- End closure, internal

## Middle rail 60-51 or 70-51

|                  |                   |
|------------------|-------------------|
| Material         | Plastic, extruded |
| Surface          | Plastic           |
| Optional surface | Laminated         |
| Material colour  | White             |

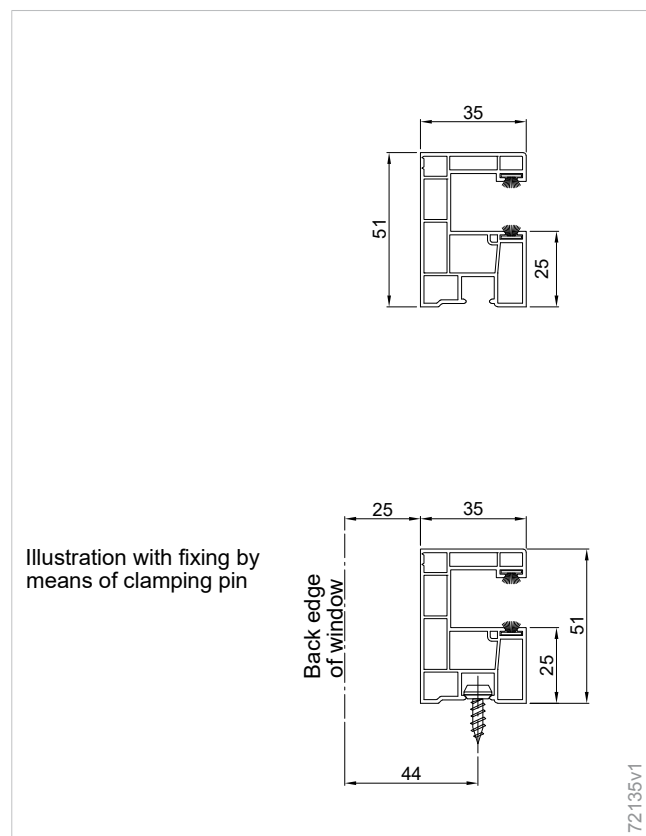
Bead:

- Integrated brush seal, grey

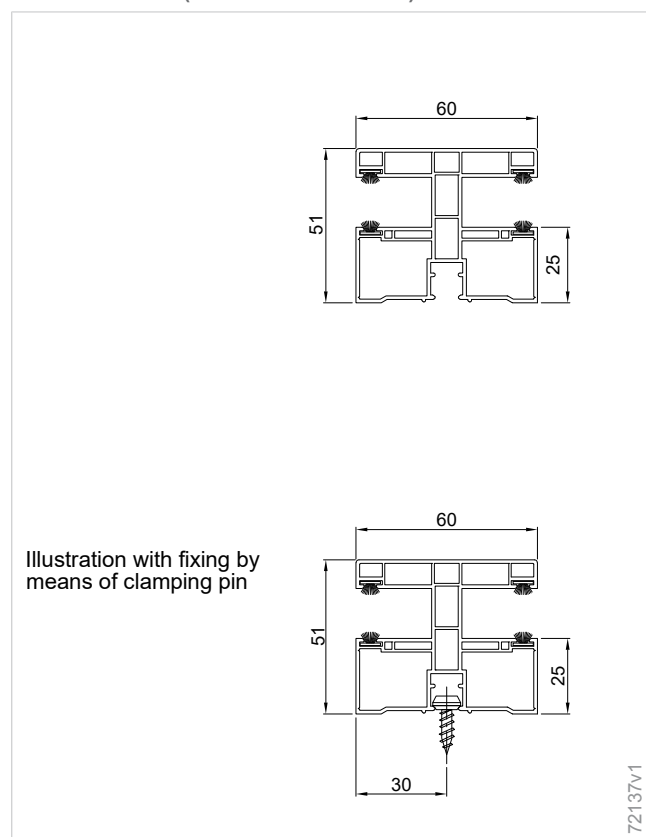
End closure, optional:

- End closure, internal

## Guide rail 35-51



## Middle rail 60-51 (without insect screen)



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

### Middle rail 90-51

|                  |                   |
|------------------|-------------------|
| Material         | Plastic, extruded |
| Surface          | Plastic           |
| Optional surface | Laminated         |
| Material colour  | White             |

2 x guide rail 35-51 incl. sheet metal cover

Not available for AU-RO

Bead:

- Integrated brush seal, grey

End closure, optional:

- End closure, internal

### Middle rail 120-51 or 131-51

|                  |                   |
|------------------|-------------------|
| Material         | Plastic, extruded |
| Surface          | Plastic           |
| Optional surface | Laminated         |
| Material colour  | White             |

2 x guide rail 60-51

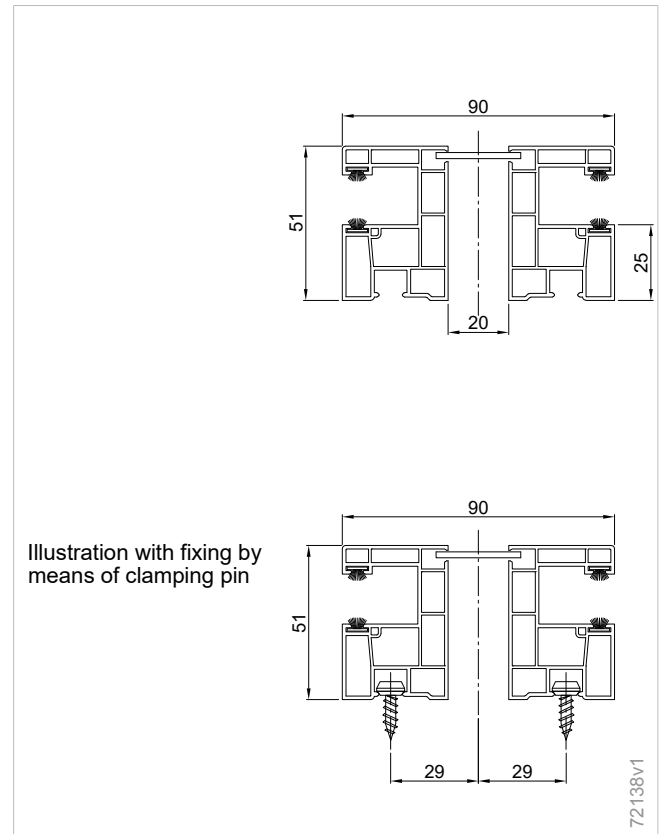
Bead:

- Integrated brush seal, grey

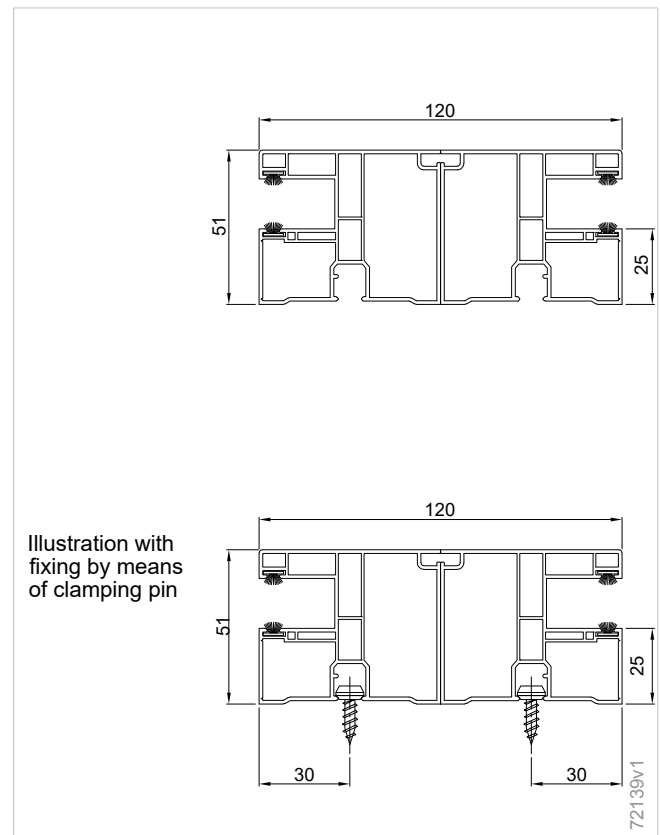
End closure, optional:

- End closure, internal

### Middle rail 90-51 (without insect screen)



### Middle rail 120-51 (without insect screen)



## Aluminium guide rails

### Guide rail 60-47 or 60-48

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- PE bead for profile S 37, art. no. 301093

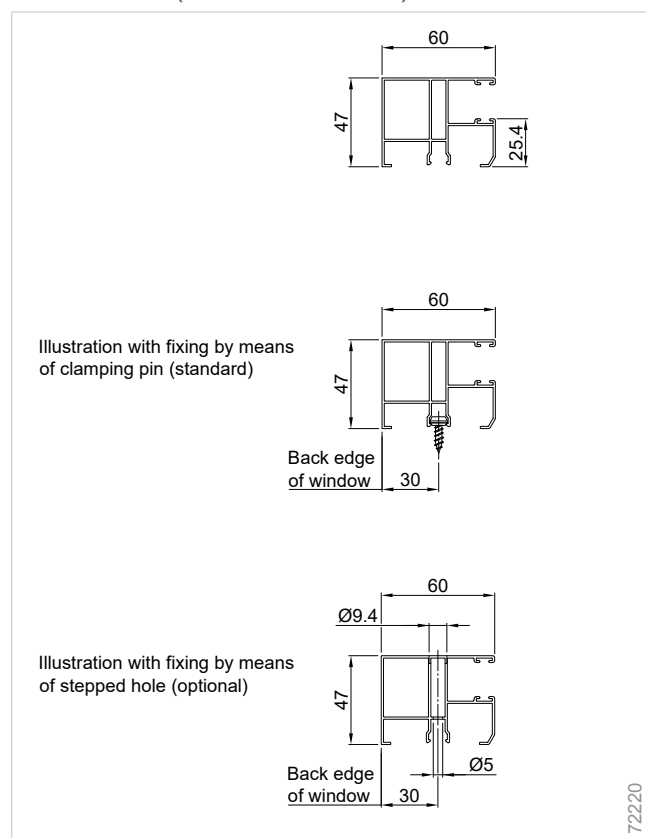
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

End closure, optional:

- End closure, internal

### Guide rail 60-47 (without insect screen)



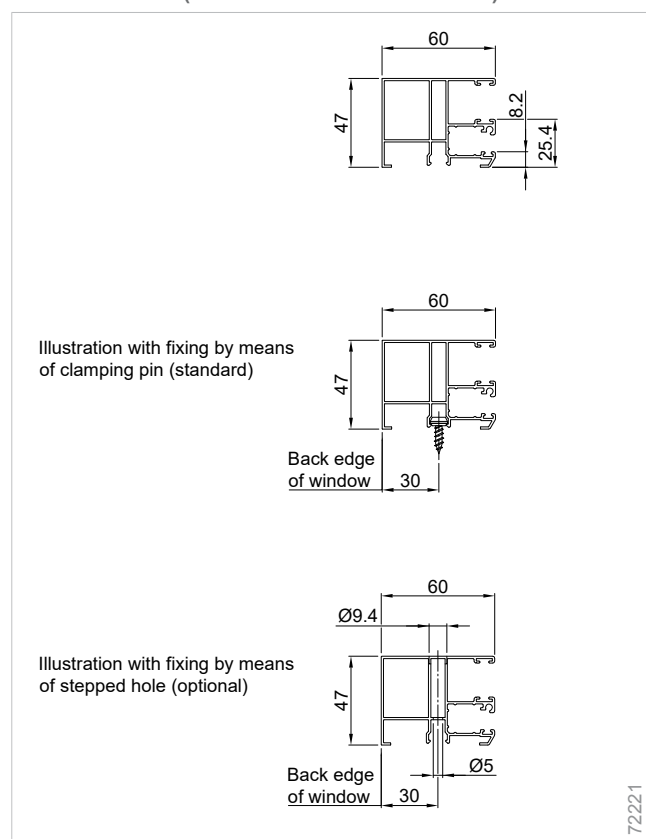
Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

### Middle rail 60-48 (with insect screen roller blind)



Supplementary accessories

Components

Drive variants

Standards



### Guide rail 40-47 or 40-48

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

**Observe offset:** The offset is 20 mm to the back edge of the window profile as standard.

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- PE bead for profile S 37, art. no. 301093

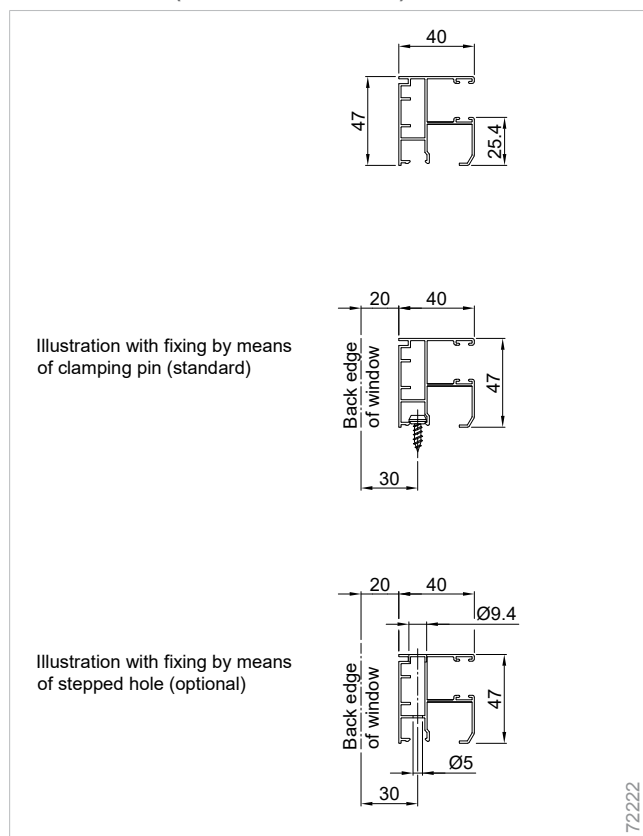
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

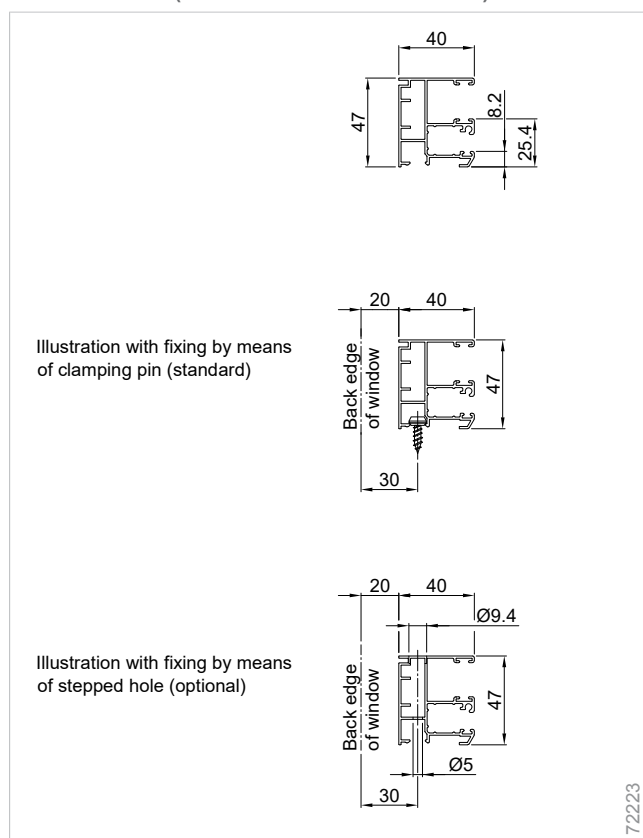
End closure, optional:

- End closure, internal

### Guide rail 40-47 (without insect screen)



### Guide rail 40-48 (with insect screen roller blind)



### Middle rail 60-47 or 60-48

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- PE bead for profile S 37, art. no. 301093

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

End closure, optional:

- End closure, internal

### Middle rail 90-47 or 90-48

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

2 x guide rail 40-47 incl. sheet metal cover

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- PE bead for profile S 37, art. no. 301093

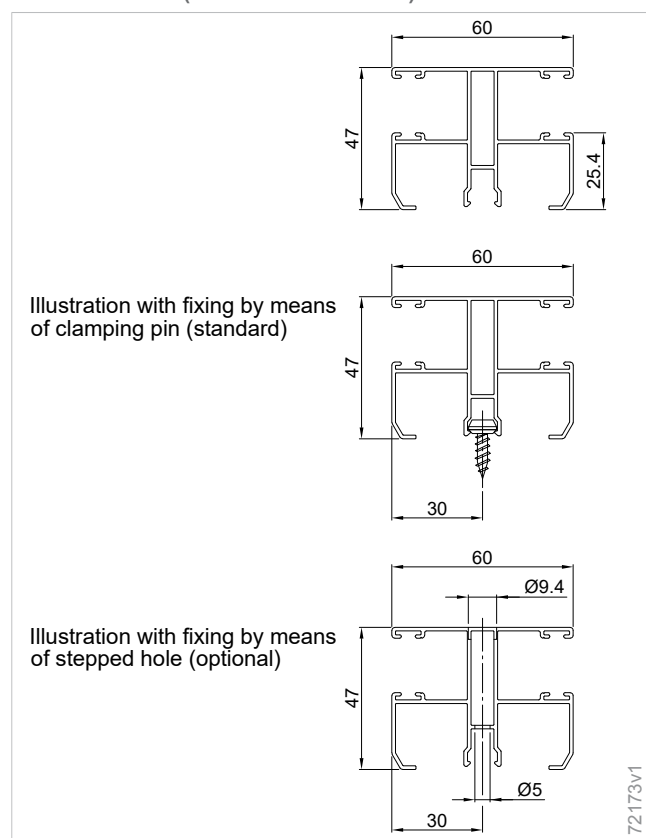
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

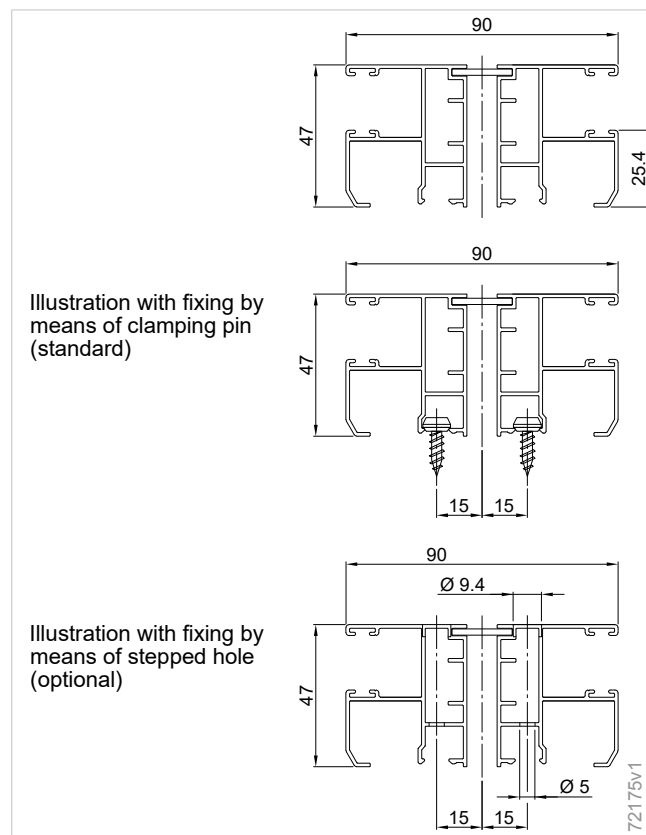
End closure, optional:

- End closure, internal

### Middle rail 60-47 (without insect screen)



### MSCH 90-47



### Middle rail 120-47 or 120-48

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

2 x guide rail 60-47

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- PE bead for profile S 37, art. no. 301093

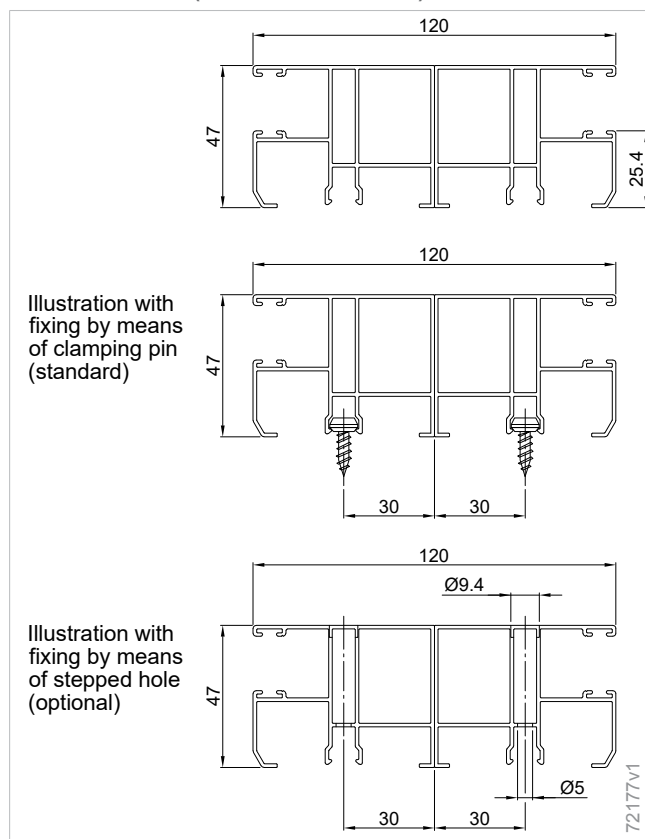
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

End closure, optional:

- End closure, internal

### Middle rail 120-47 (without insect screen)



## Additional product information

### Fixing material for guide rails

Fixing with clamping pin, guide rail AU-RO, NA-RO inspection from inside



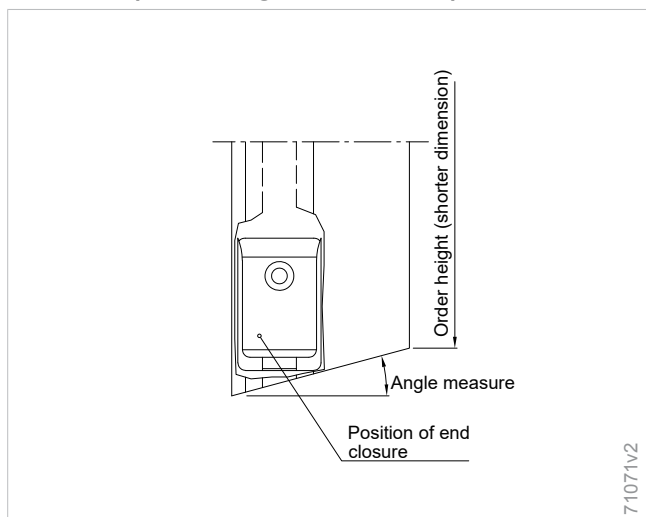
- Thread length: 10 mm
- Qty.: 3 pcs/running metre. Guide rail

## Guide rails sloped at the bottom, including end closure

Optically matches the guide rail to the inclination of the window sill.

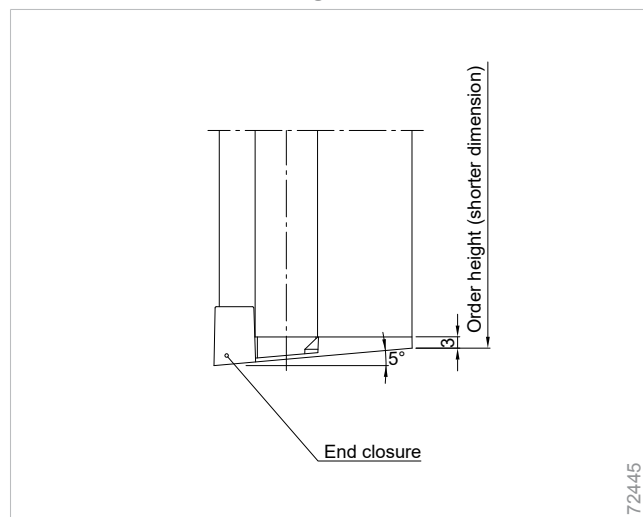
- A product variant with sloped guide rails should be explicitly specified.
- End closures for sloped guide rails are automatically not included and must be specified separately on the order.

### End closure position for guide rails with sloped cut



- Internal end closure available for plastic and aluminium guide rails
- Diagonal cut can be freely selected

### External end closure with integrated inclination



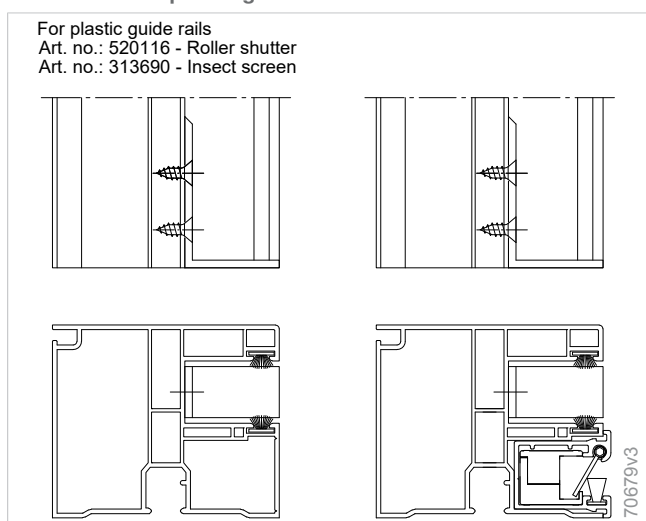
- End closure over plastic cap, white or black
- Fixed sloped cut 5°
- Can only be used with plastic guide rails

## End closures for guide rails

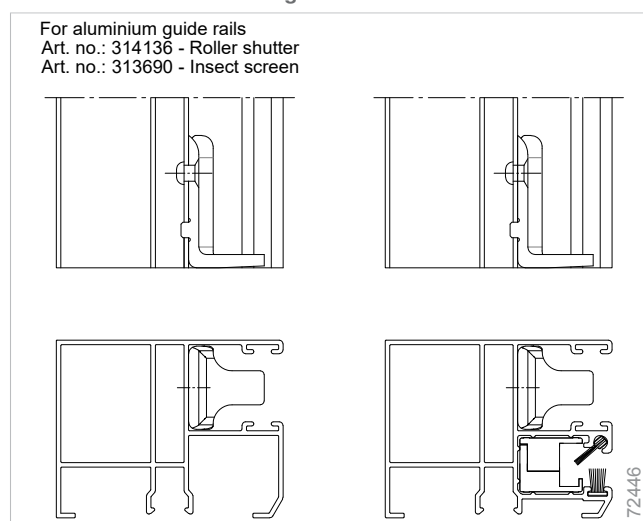
Lower roller shutter curtain end point via end closure in the guide rails, if no window sill exists.

End closures are not included in the standard scope of delivery and have to be specified separately on the order.

### End closure for plastic guide rails



### End closure for aluminium guide rails



# Guide rails for top-mounted roller shutters NA-RO inspection from outside

## Plastic guide rails, size 80 shaft

### Guide rail 63-74, plastic (white), 25 mm offset

|                   |                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material          | Plastic, extruded                                                                                                                                                                    |
| Surface           | Plastic                                                                                                                                                                              |
| Optional surface  | Laminated                                                                                                                                                                            |
| Material colour   | White                                                                                                                                                                                |
| Dimensions, notes | Includes: <ul style="list-style-type: none"><li>- Support profile 18-74</li><li>- Guide rail 30-46</li><li>- Guide rail 34-24 (for models with insect screen roller blind)</li></ul> |

**Observe offset:** The offset is 25 mm to the back edge of the window profile as standard.

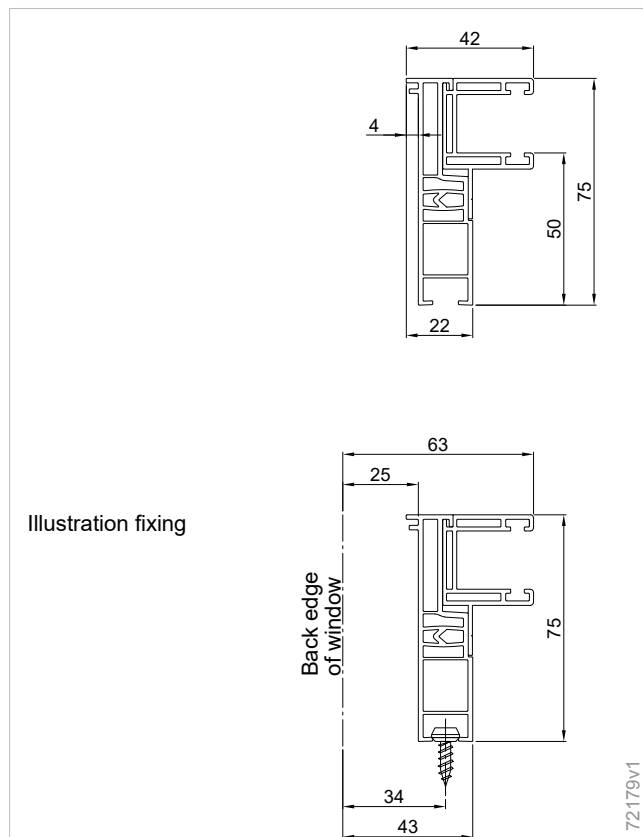
Bead:

- integrated plastic sealing strip, grey

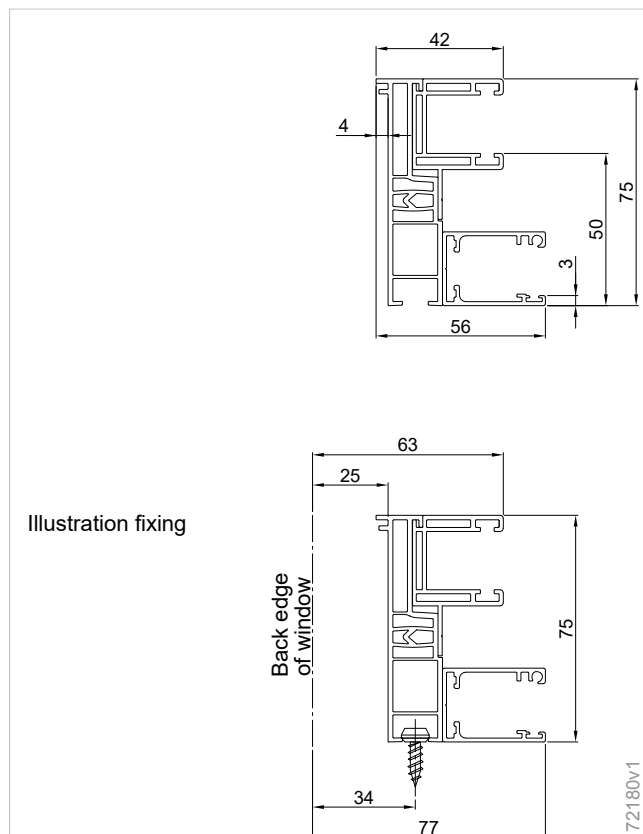
End closure, optional:

- End closure, internal

Guide rail 63-74 (without insect screen)



Guide rail 63-74 (with insect screen roller blind)



### Middle rail 63-74

|                   |                                                                                                                                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material          | Plastic, extruded                                                                                                                                       |
| Surface           | Plastic                                                                                                                                                 |
| Optional surface  | Laminated                                                                                                                                               |
| Material colour   | White                                                                                                                                                   |
| Dimensions, notes | Includes: <ul style="list-style-type: none"> <li>– 2x guide rail 30-46</li> <li>– 1 x aluminium tube 45x20x2</li> <li>– 2 x guide rail 34-24</li> </ul> |

Shaft depth 80 mm, without/with insect screen

Bead:

- integrated plastic sealing strip, grey

End closure, optional:

- End closure, internal

### Middle rail 84-74

|                   |                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material          | Plastic, extruded                                                                                                                                                                                   |
| Surface           | Plastic                                                                                                                                                                                             |
| Optional surface  | Laminated                                                                                                                                                                                           |
| Material colour   | White                                                                                                                                                                                               |
| Dimensions, notes | Includes: <ul style="list-style-type: none"> <li>– 1x support profile 18-74</li> <li>– 2 x guide rail 30-46</li> <li>– 2 x guide rail 34-24 (for models with insect screen roller blind)</li> </ul> |

For a shaft depth of 80 mm, without/with insect screen

Bead:

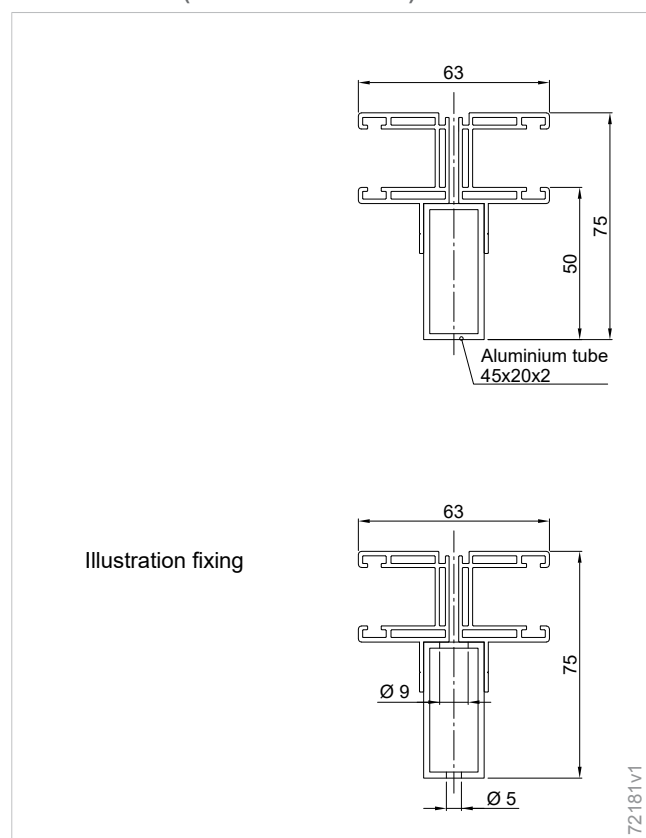
- integrated plastic sealing strip, grey

End closure, optional:

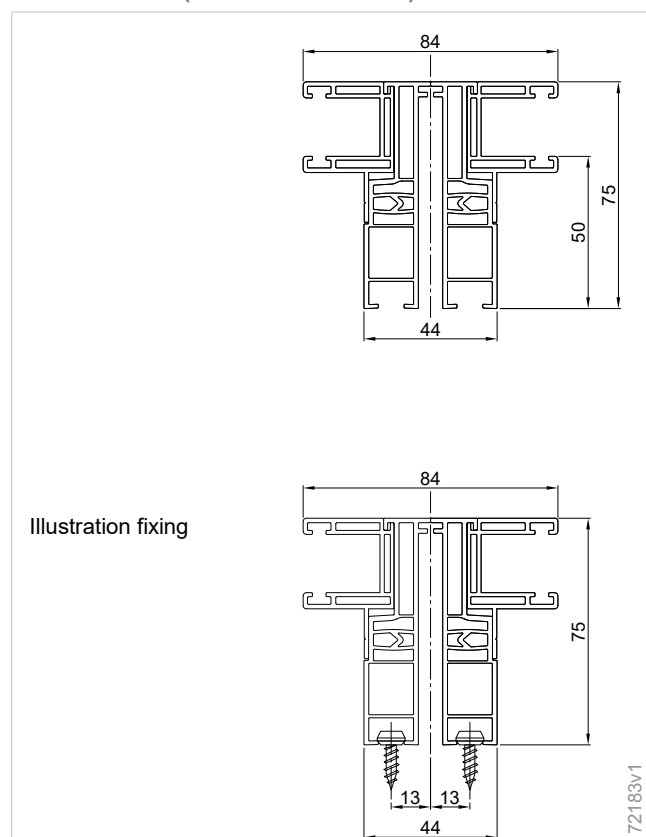
- End closure, internal

For a shaft depth of 80 mm, without/with insect screen

### Middle rail 63-74 (without insect screen)



### Middle rail 84-74 (without insect screen)



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

### Middle rail 126-74

|                  |                                                                                                                                                            |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material         | Plastic, extruded                                                                                                                                          |
| Surface          | Plastic                                                                                                                                                    |
| Optional surface | Laminated                                                                                                                                                  |
| Material colour  | White                                                                                                                                                      |
| Material, notes  | Includes: <ul style="list-style-type: none"><li>– 2x support profile 18-74</li><li>– 2 x guide rail 30-46</li><li>– 1x aluminium sheet 1.5x50 mm</li></ul> |

For a shaft depth of 80 mm, without/with insect screen

Bead:

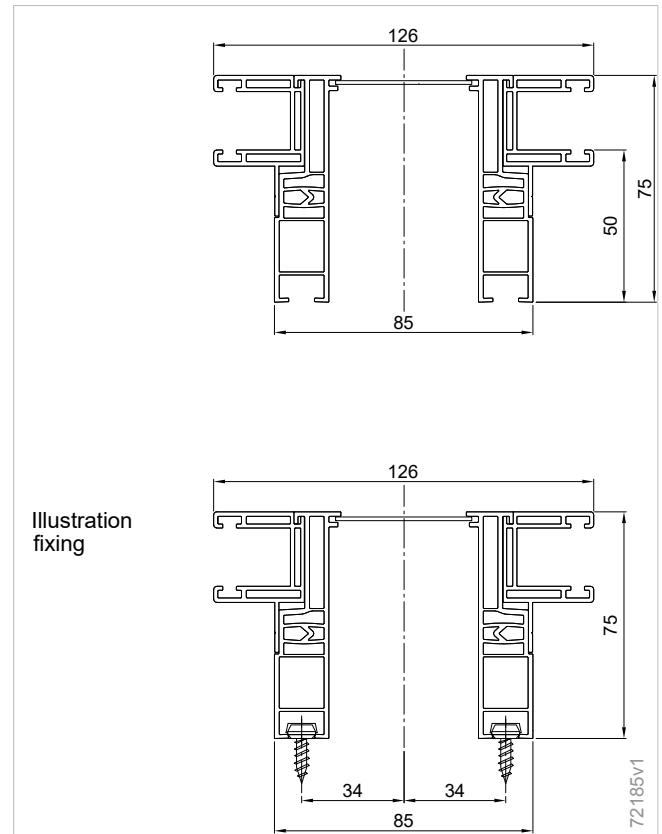
- integrated plastic sealing strip, grey

End closure, optional:

- End closure, internal

For a shaft depth of 80 mm, without/with insect screen

### Middle rail 126-74 (without insect screen)



## Aluminium guide rails, size 80 shaft

### Guide rail 60-85, aluminium, 20 mm offset

|                  |                                                                                                                 |
|------------------|-----------------------------------------------------------------------------------------------------------------|
| Material         | Aluminium, extruded                                                                                             |
| Surface          | Powder-coated                                                                                                   |
| Optional surface | Anodised natural colour                                                                                         |
| Material, notes  | Includes: <ul style="list-style-type: none"> <li>– Support profile 25-85</li> <li>– Guide rail 30-49</li> </ul> |

**Observe offset:** The offset is 20 mm to the back edge of the window profile as standard.

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

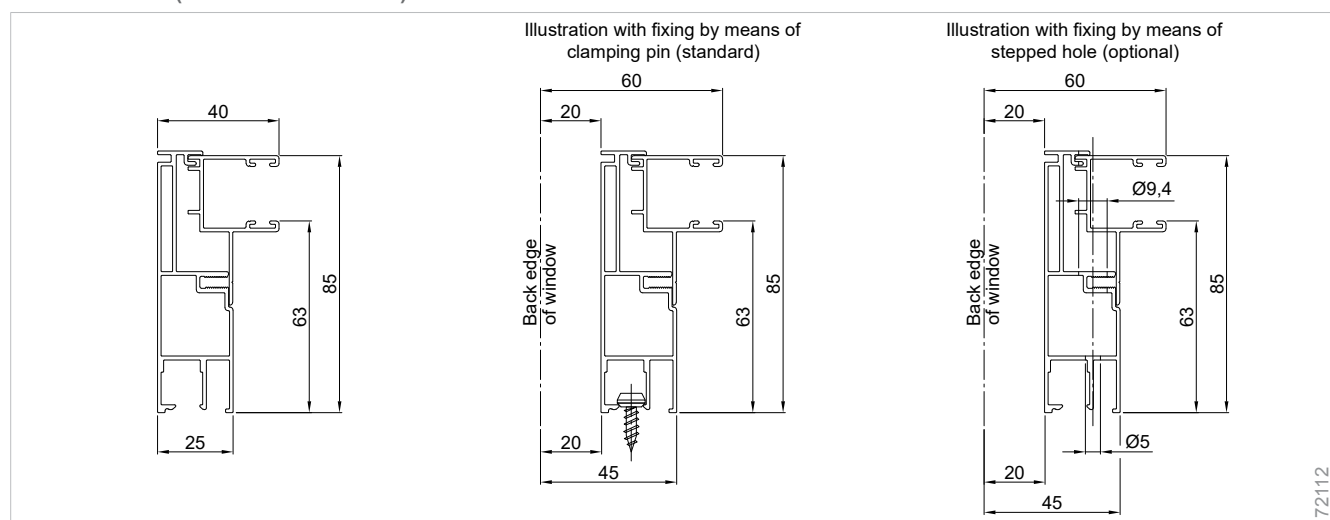
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

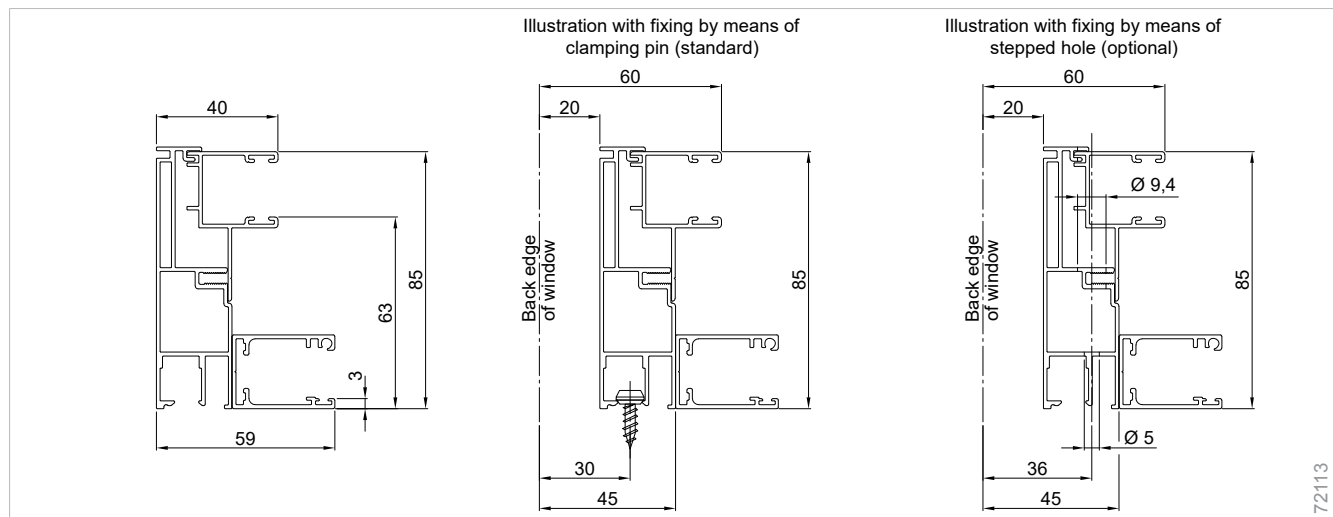
- End closure, internal

### Guide rail 60-85 (without insect screen)





### Guide rail 60-85 (with insect screen roller blind)



### Middle rail 60-85

|                 |                                                                                                                    |
|-----------------|--------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium, extruded                                                                                                |
| Surface         | Powder-coated                                                                                                      |
| Material, notes | Includes: <ul style="list-style-type: none"> <li>- Support profile 30-60</li> <li>- 2x guide rail 30-49</li> </ul> |

#### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

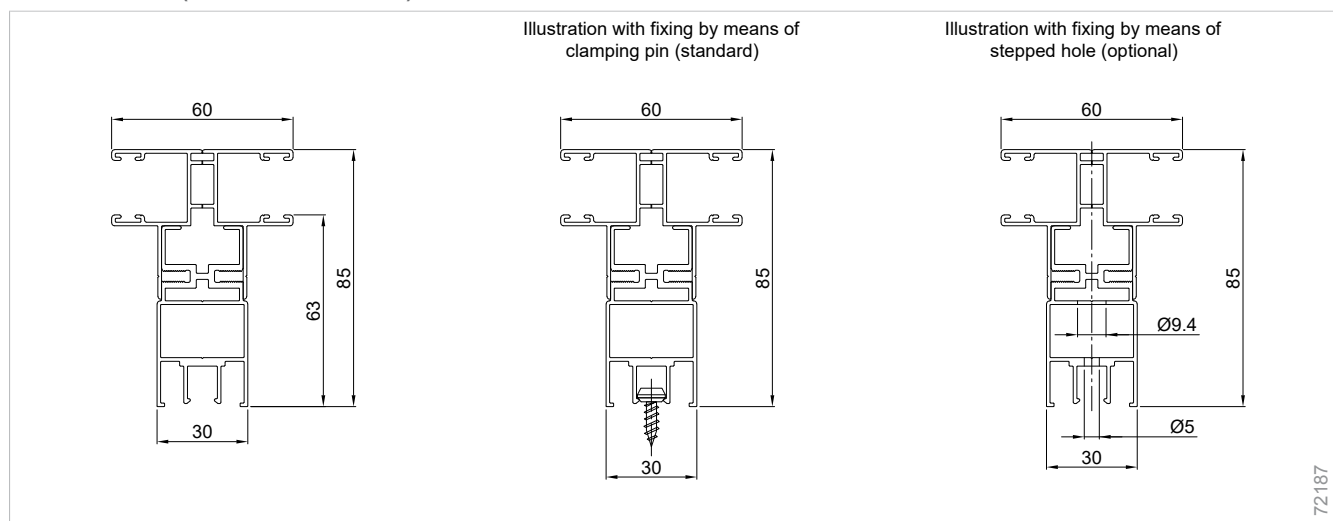
#### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

#### End closure, optional:

- End closure, internal

### Middle rail 60-85 (without insect screen)



## Middle rail 90-85

|                 |                                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium, extruded                                                                                                                                         |
| Surface         | Powder-coated                                                                                                                                               |
| Material, notes | Includes: <ul style="list-style-type: none"> <li>– 2x support profile 30-60</li> <li>– 2x guide rail 30-49</li> <li>– 1x aluminium sheet 35x2 mm</li> </ul> |

### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

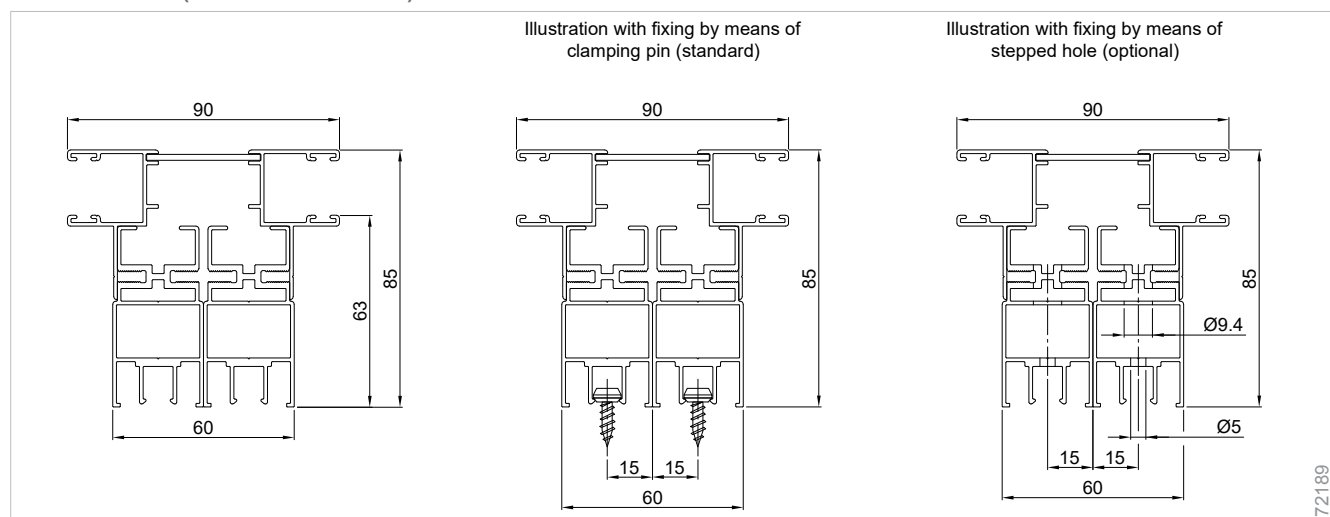
### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

### End closure, optional:

- End closure, internal

## Middle rail 90-85 (without insect screen)



### Middle rail 120-85

|                 |                                                                                                                                                                                                                                              |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium, extruded                                                                                                                                                                                                                          |
| Surface         | Powder-coated                                                                                                                                                                                                                                |
| Material, notes | <ul style="list-style-type: none"><li>- Includes:</li><li>- 2x support profile 25-85</li><li>- 2 x guide rail 30-49</li><li>- 2 x guide rail 34-24 (for models with insect screen roller blind)</li><li>- 1 x aluminium sheet 46x2</li></ul> |

#### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

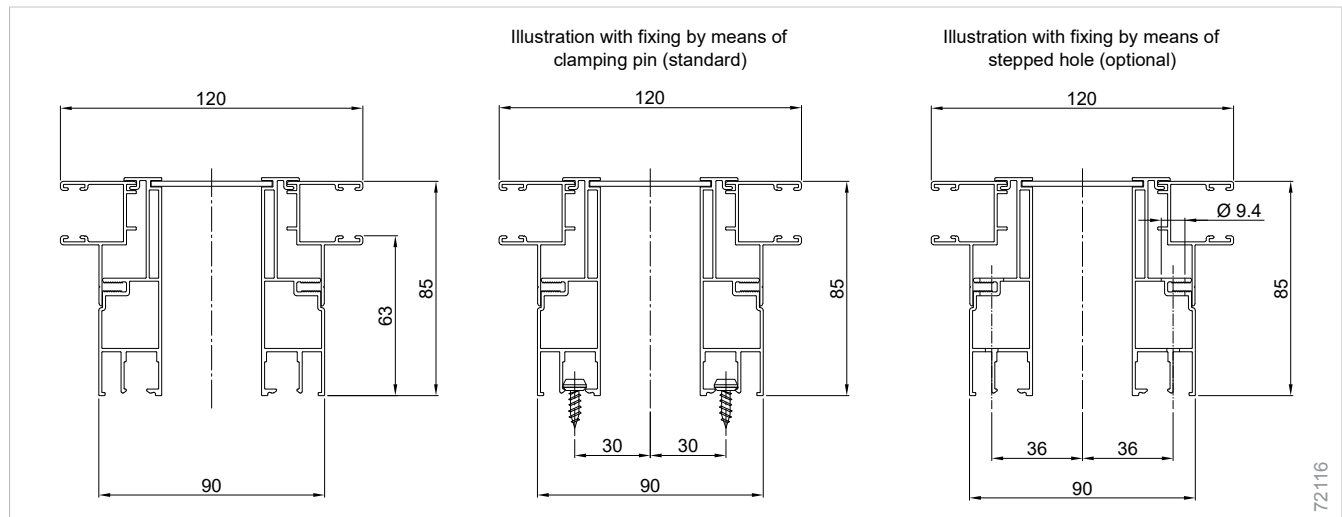
#### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

#### End closure, optional:

- End closure, internal

### Middle rail 120-85 (without insect screen)



## Aluminium guide rails, size 120 shaft

### Guide rail 60-125, aluminium, 20 mm offset

|                  |                                                                                                                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material         | Aluminium, extruded                                                                                                                                                                                                            |
| Surface          | Powder-coated                                                                                                                                                                                                                  |
| Optional surface | Anodised natural colour                                                                                                                                                                                                        |
| Material, notes  | Includes: <ul style="list-style-type: none"> <li>- Support profile 25-85</li> <li>- Guide rail 30-49</li> <li>- Guide rail 34-24 (for models with insect screen roller blind)</li> <li>- 1 x aluminium tube 40x25x2</li> </ul> |

**Observe offset:** The offset is 20 mm to the back edge of the window profile as standard.

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

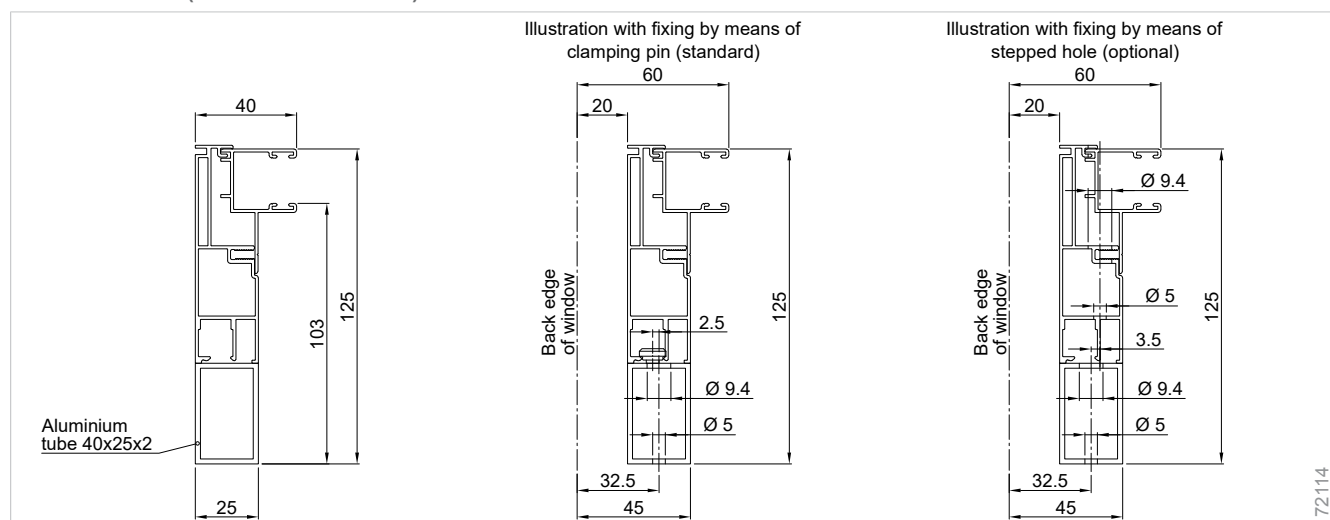
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

End closure, optional:

- End closure, internal

### Guide rail 60-125 (without insect screen)



### Middle rail 60-125

|                 |                                                                                                                                                                                                                                   |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium, extruded                                                                                                                                                                                                               |
| Surface         | Powder-coated                                                                                                                                                                                                                     |
| Material, notes | Includes: <ul style="list-style-type: none"><li>- Support profile 30-60</li><li>- 2 x guide rail 30-49</li><li>- 2 x guide rail 34-24 (for models with insect screen roller blind)</li><li>- 1 x aluminium tube 40x30x2</li></ul> |

#### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

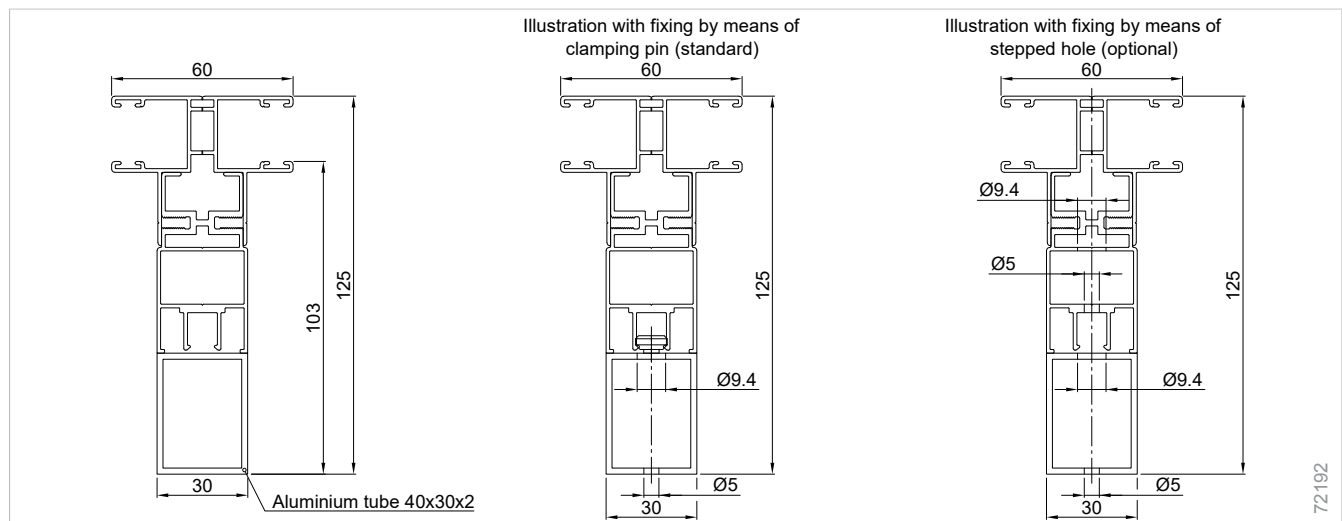
#### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

#### End closure, optional:

- End closure, internal

### Middle rail 60-125 (without insect screen)



## Middle rail 90-125

|                 |                                                                                                                                                                                                                                                                                          |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium, extruded                                                                                                                                                                                                                                                                      |
| Surface         | Powder-coated                                                                                                                                                                                                                                                                            |
| Material, notes | Includes: <ul style="list-style-type: none"> <li>– 2 x support profile 30-60</li> <li>– 2 x guide rail 30-49</li> <li>– 2 x guide rail 34-24 (for model with integrated insect screen roller blind)</li> <li>– 2 x aluminium tube 40x30x2</li> <li>– 1 x aluminium sheet 35x2</li> </ul> |

### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

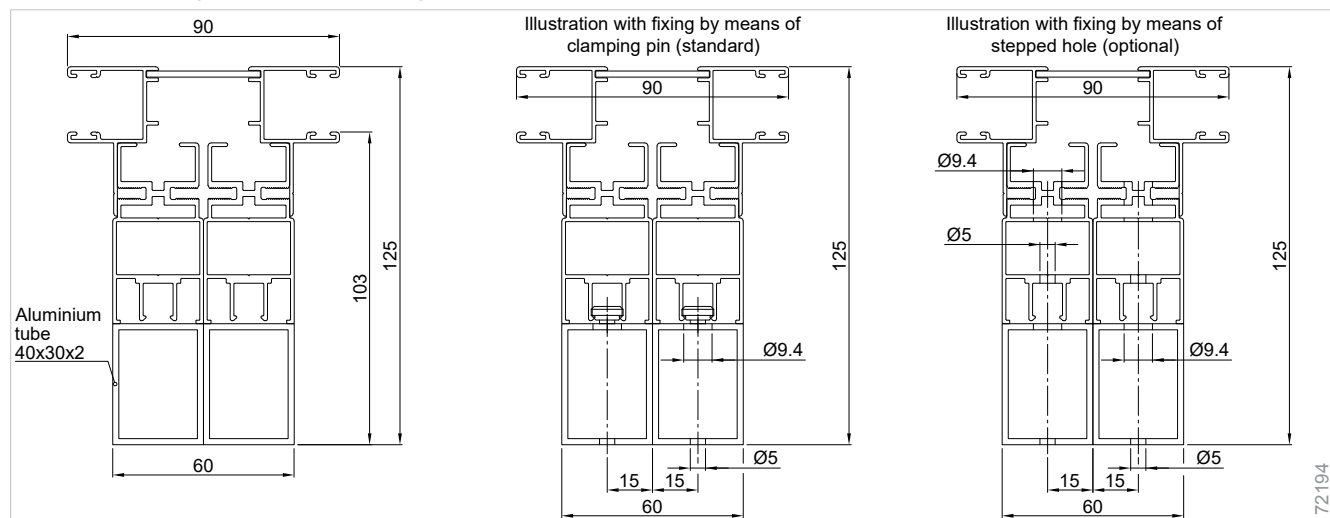
### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

### End closure, optional:

- End closure, internal

## Middle rail 90-125 (without insect screen)



## Middle rail 120-125

|                 |                                                                                                                                                                                                                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material        | Aluminium, extruded                                                                                                                                                                                                                                                                                |
| Surface         | Powder-coated                                                                                                                                                                                                                                                                                      |
| Material, notes | <ul style="list-style-type: none"> <li>- Includes:</li> <li>- 2x support profile 25-85</li> <li>- 2 x guide rail 30-49</li> <li>- 2 x guide rail 34-24 (for model with integrated insect screen roller blind)</li> <li>- 2 x aluminium tube 40x25x2</li> <li>- 1 x aluminium sheet 46x2</li> </ul> |

### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

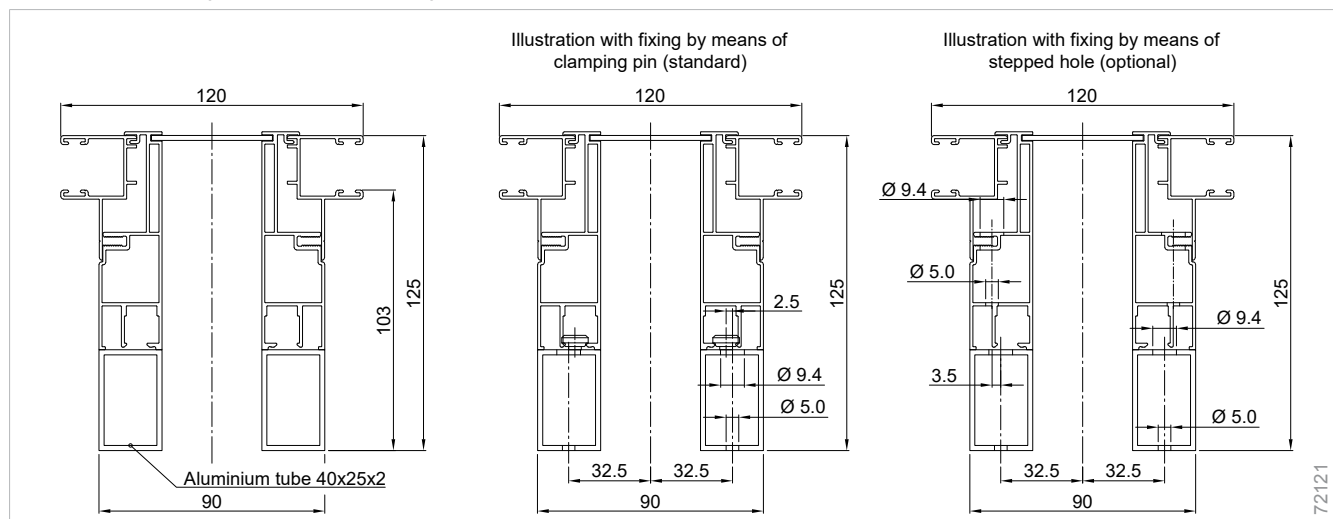
### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

### End closure, optional:

- End closure, internal

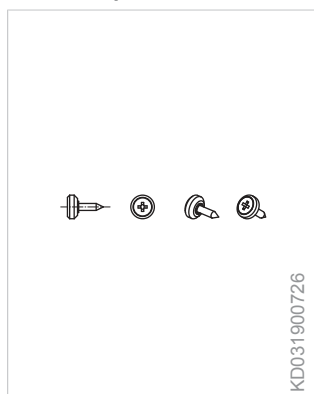
## Middle rail 120-125 (without insect screen)



## Additional product information

### Fixing material for guide rails

Fixing via clamping pin, guide rails for NA-RO inspection from outside

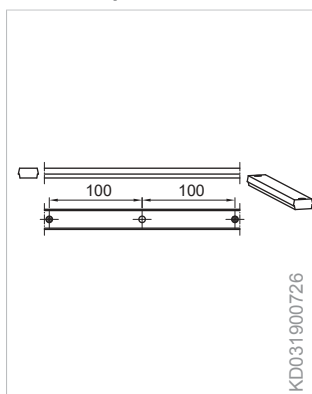


Use of clamping pin: With aluminium guide rails

Thread length: 10 mm

Qty.: 3 pcs/running metre. Guide rail

Fixing via clamping rail, guide rails for NA-RO inspection from outside



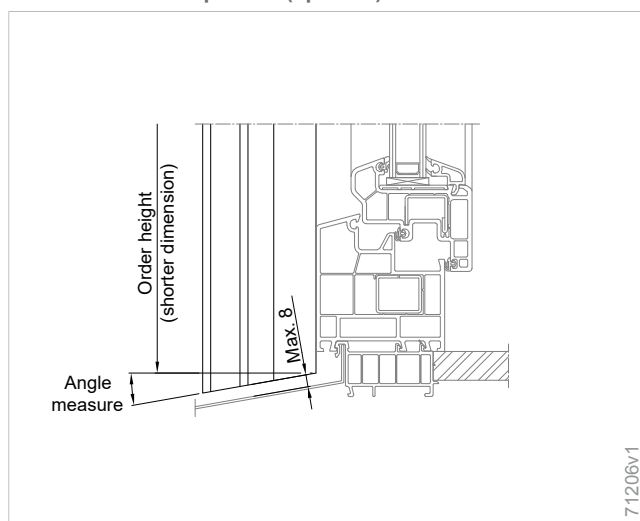
Use of clamping rail: With plastic guide rails

### Guide rails sloped at the bottom

Optically matches the guide rail to the inclination of the window sill.

- A product variant with sloped guide rails should be explicitly specified.
- End closures for sloped guide rails are automatically not included and must be specified separately on the order.
- Please specify the degree of inclination of the angled cut when ordering.

Guide rails with sloped cut (optional)



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

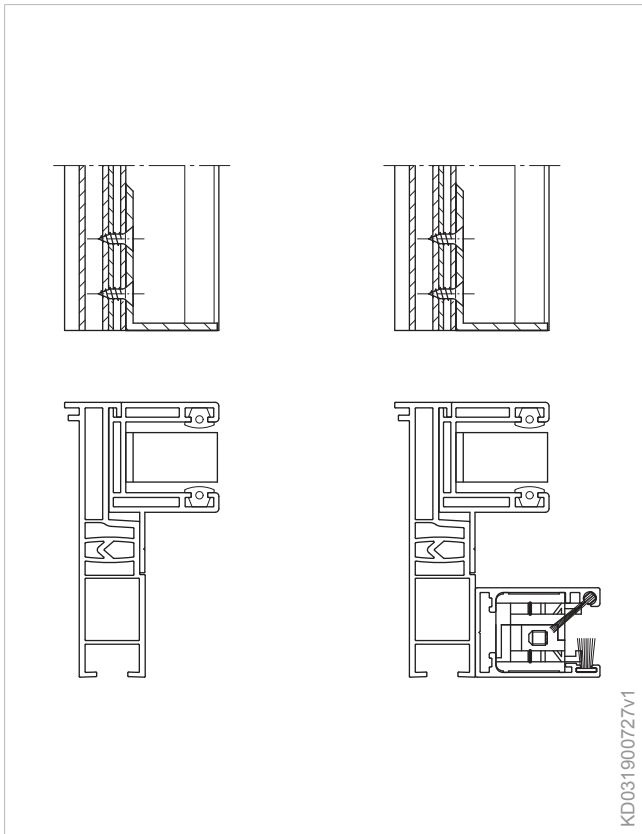


## End closures for guide rails

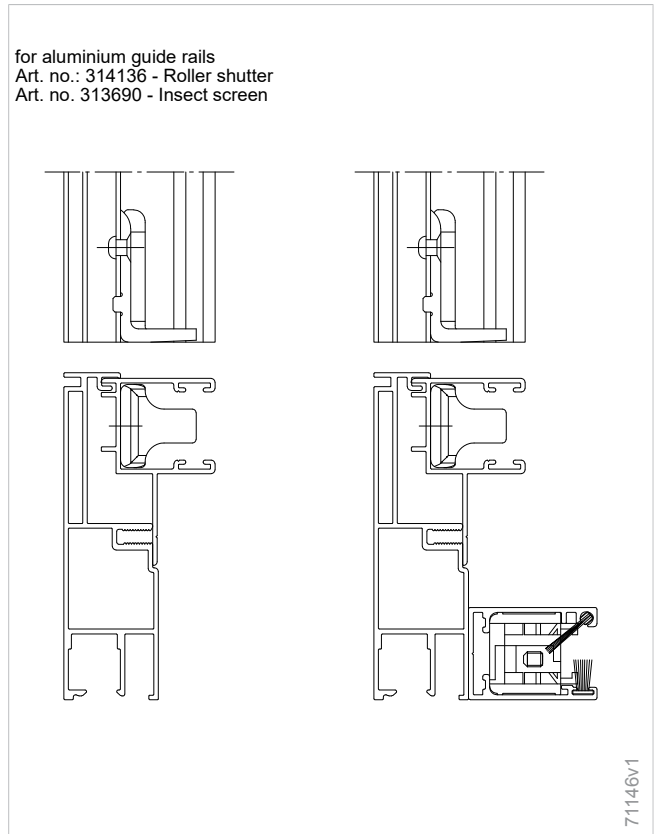
Lower roller shutter curtain end point via end closure in the guide rails, if no window sill exists.

End closures are not included in the standard scope of delivery and have to be specified separately on the order.

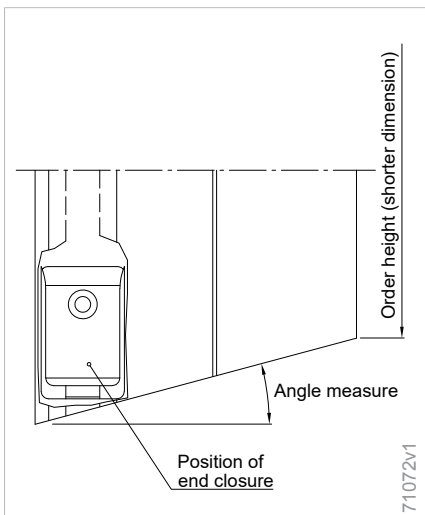
### End closure for plastic guide rails



### End closure for aluminium guide rails



### End closure position for guide rails with sloped cut



# Guide rails for renovation roller shutters RE-RO

## Guide rail 44-25

|                  |               |
|------------------|---------------|
| Surface          | Powder-coated |
| Optional surface | Anodised      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 301203

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

## Guide rail 58-25

|                  |               |
|------------------|---------------|
| Surface          | Powder-coated |
| Optional surface | Anodised      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 301203

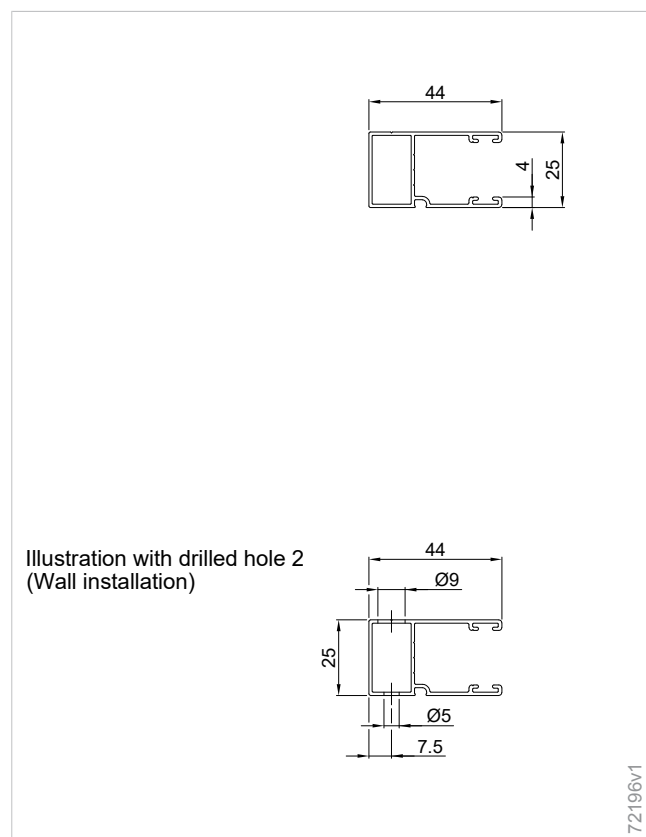
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

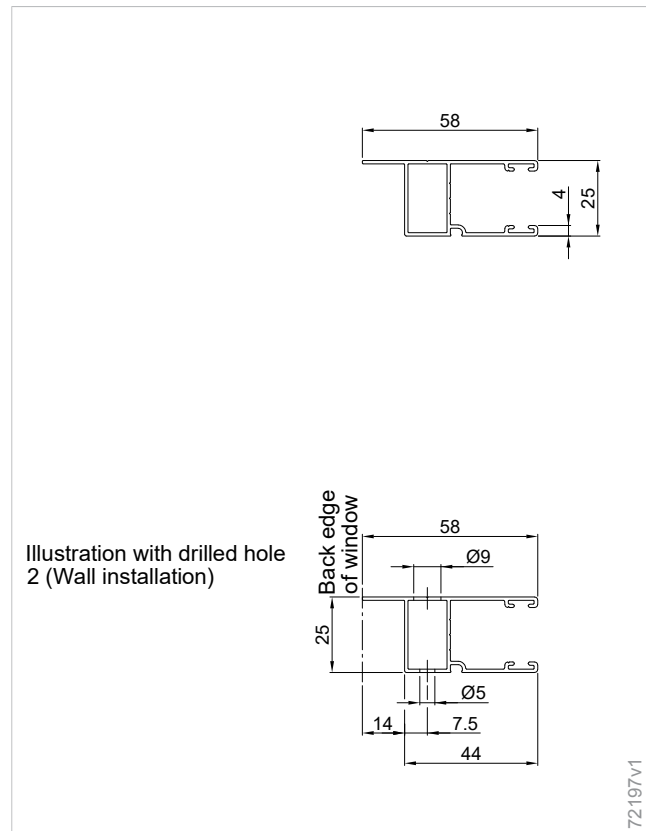
End closure, optional:

- End closure, internal

## Guide rail 44-25



## Guide rail 58-25 (with leg)



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

### Guide rail 44-32

|                  |               |
|------------------|---------------|
| Surface          | Powder-coated |
| Optional surface | Anodised      |

#### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 301203

#### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

#### End closure, optional:

- End closure, internal

### Guide rail 44-32

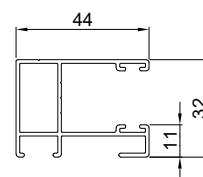
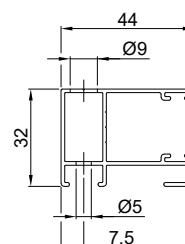


Illustration with drilled hole 2 (Wall installation)



72198v1

### Guide rail 58-32

|                  |               |
|------------------|---------------|
| Surface          | Powder-coated |
| Optional surface | Anodised      |

#### Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 301203

#### Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

#### End closure, optional:

- End closure, internal

### Guide rail 58-32 (with leg)

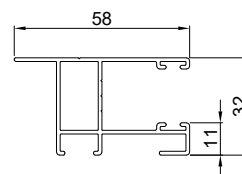
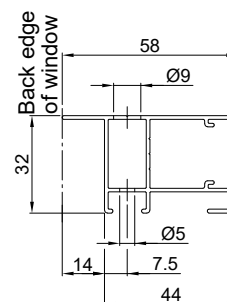


Illustration with drilled hole 2 (Wall installation)



72199v1

### Guide rail 44-44

|                  |               |
|------------------|---------------|
| Surface          | Powder-coated |
| Optional surface | Anodised      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 301203

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

### Guide rail, 58-44 mm

|                  |               |
|------------------|---------------|
| Surface          | Powder-coated |
| Optional surface | Anodised      |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 301203

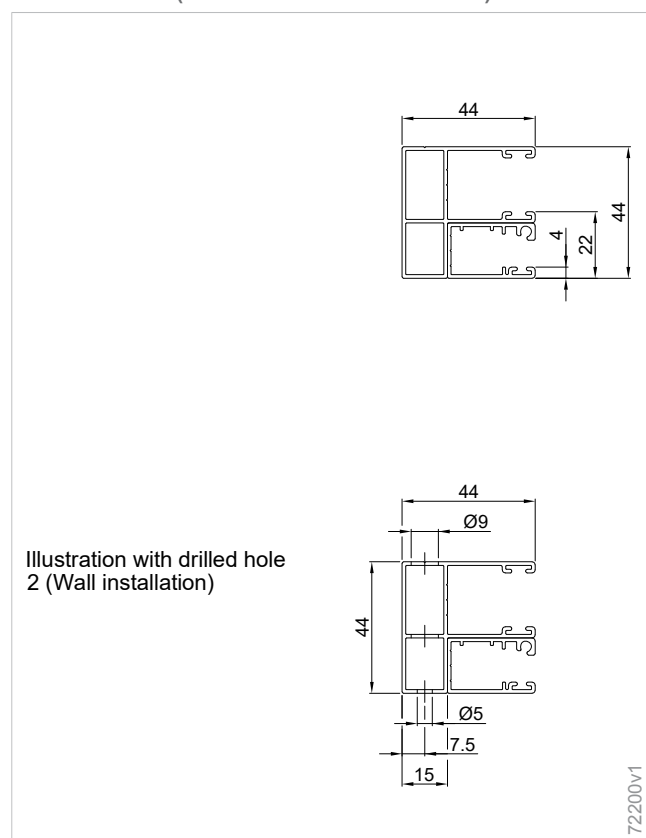
Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

### Guide rail 44-44 (with insect screen roller blind)

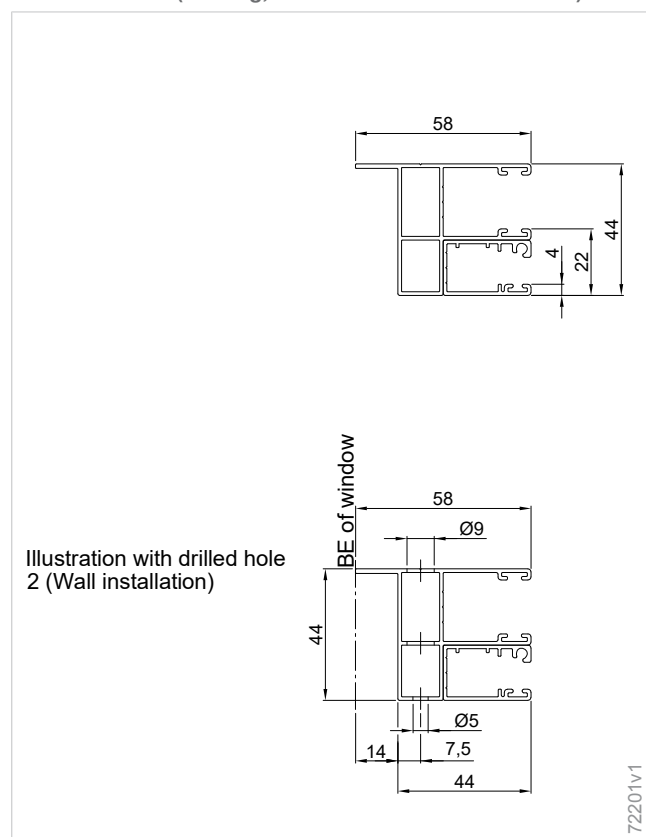


Planning

Front-mounted roller shutters

Top-mounted roller shutters

### Guide rail 58-44 (with leg, with insect screen roller blind)



Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

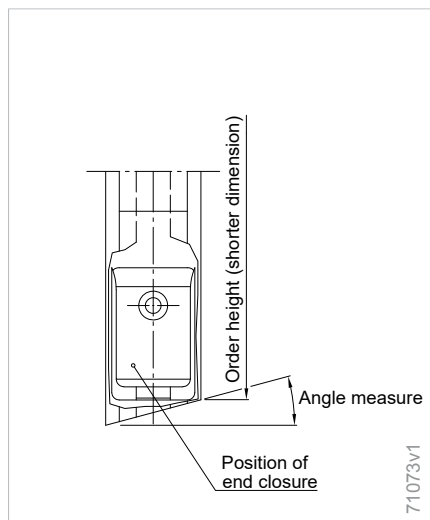
## Additional product information

### End closures for guide rails

Lower roller shutter curtain end point via end closure in the guide rails, if no window sill exists.

End closures are not included in the standard scope of delivery and have to be specified separately on the order.

#### End closure position for guide rails with sloped cut



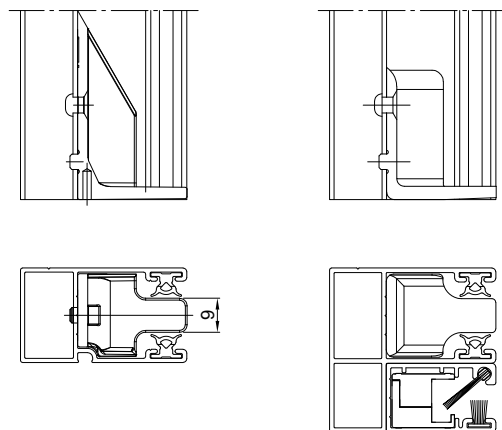
#### End closure

##### End closure

for aluminium guide rails

Art. no. 2007678, left or art. no. 2007679, right - roller shutter curtain

Art. no. 313690 - insect screen



# Guide rails for SE-RO

## Guide rails for SE-RO

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

### Bead:

- Plastic bead, small, art. no. 301120

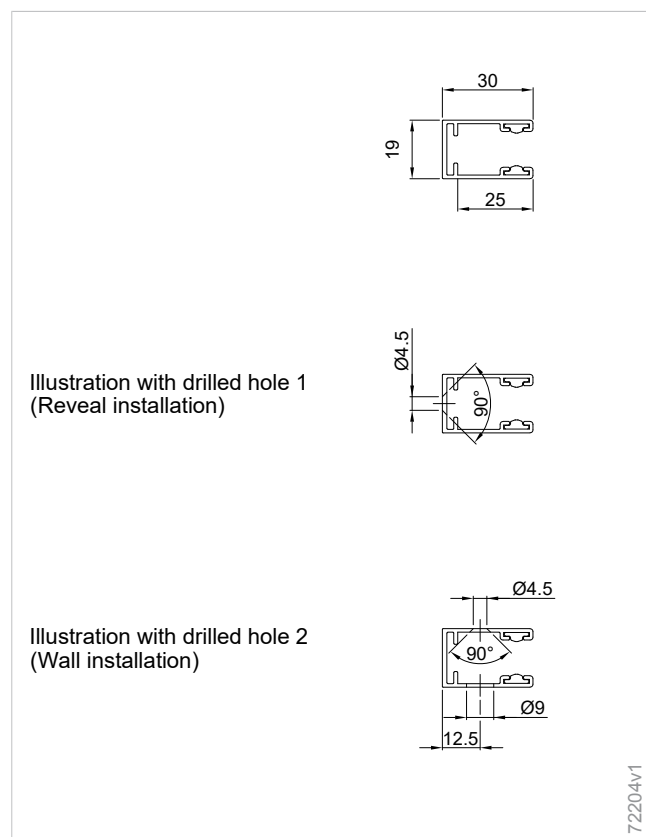
### Bead, optional:

- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045

### End closure, optional:

- End closure, internal

## Guide rail 30-19.5



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards

# Guide rails for roller shutters for on-site lintel boxes

## Guide rail 30-19

|                  |                                            |
|------------------|--------------------------------------------|
| Surface          | Powder-coated                              |
| Optional surface | Anodised natural colour, Anodised coloured |

Bead:

- Plastic bead, small, art. no. 301120

Bead, optional:

- Brush seal, short, for profile A 36, A 44 and K 36, art.-no. 301045

End closure, optional:

- End closure, internal

## Guide rail 30-19

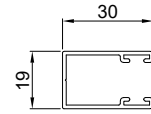


Illustration with drilled hole 1  
(Reveal installation)

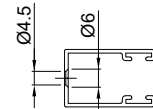
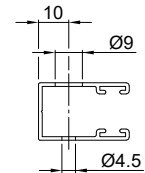


Illustration with drilled hole 2  
(Wall installation)



72207v1

## Guide rail 30-25

|                  |                                            |
|------------------|--------------------------------------------|
| Surface          | Powder-coated                              |
| Optional surface | Anodised natural colour, Anodised coloured |

Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045
- PE bead for profile S 37, art. no. 301093

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

End closure, optional:

- End closure, internal

## Guide rail 30-25

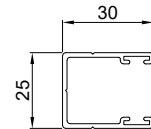


Illustration with drilled hole 1  
(Reveal installation)

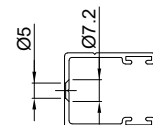
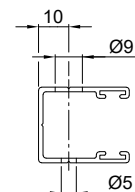


Illustration with drilled hole 2  
(Wall installation)



72208v1

## Guide rail 30-28

|                  |                                            |
|------------------|--------------------------------------------|
| Surface          | Powder-coated                              |
| Optional surface | Anodised natural colour, Anodised coloured |

Bead:

- Bead made of plastic, large, art. no. 301053

End closure, optional:

- End closure, internal

## Guide rail 38-41

|                  |                   |
|------------------|-------------------|
| Surface          | Powder-coated     |
| Optional surface | Anodised coloured |

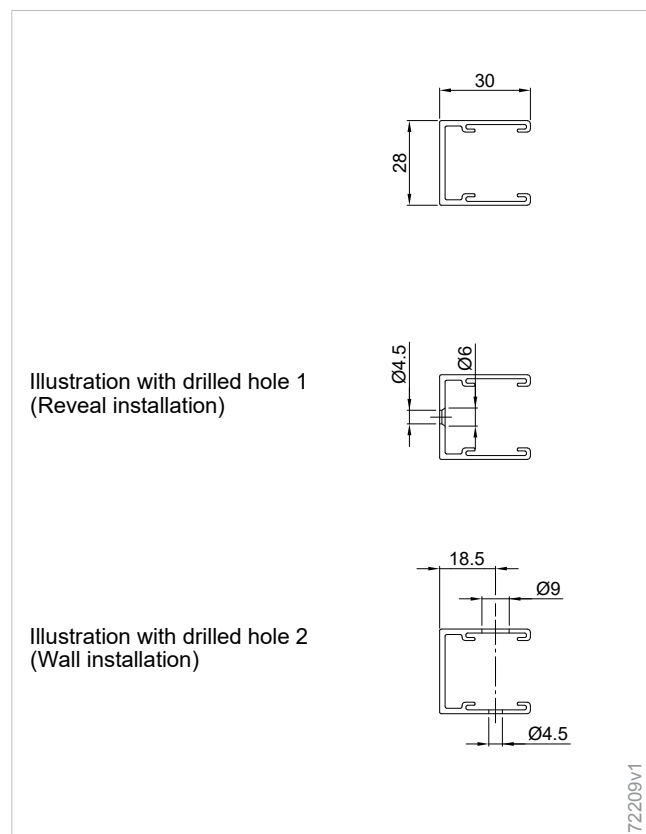
Bead:

- Plastic bead, for profile A 36 and K 36, art. no. 2021297
- Plastic bead, for profile A 44, art. no. 301203
- Brush seal, short, for profile A 53, K 52/55, art.-no. 301045
- PE bead for profile S 37, art. no. 301093

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

## Guide rail 30-28

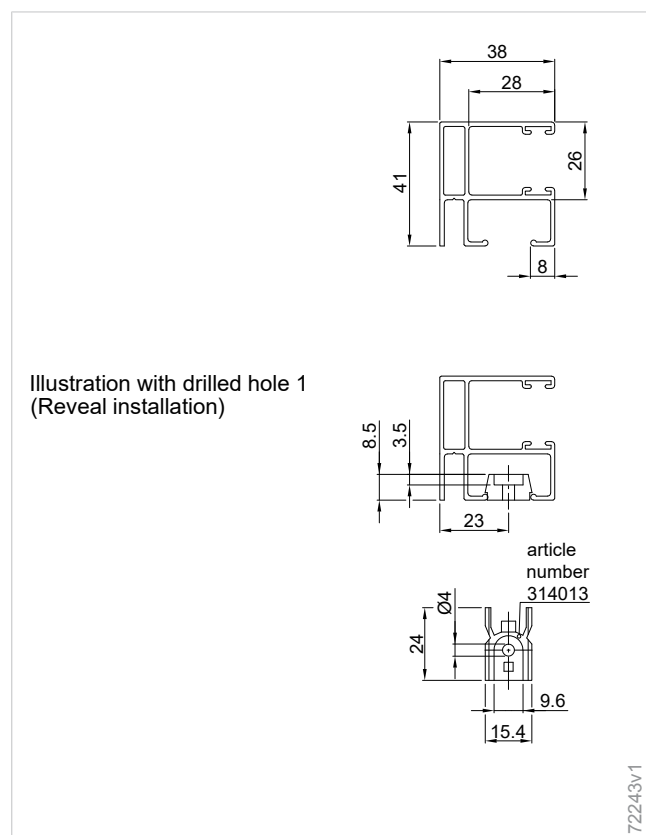


Planning

Front-mounted roller shutters

Top-mounted roller shutters

## Guide rail 38-41



Shaft roller shutters

Supplementary accessories

Components

Drive variants

Standards



### Guide rail 60-75

|                  |                                            |
|------------------|--------------------------------------------|
| Surface          | Powder-coated                              |
| Optional surface | Anodised natural colour, Anodised coloured |

For the use of guide rail 60-75, a minimum installation depth of 80 mm is required.

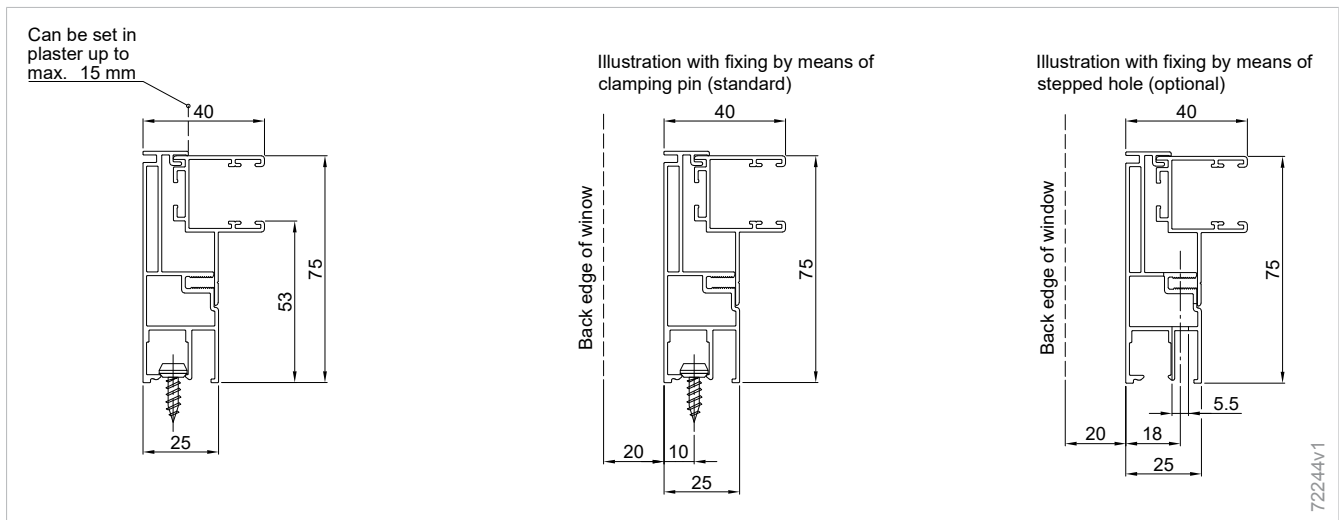
Bead:

- Plastic bead, for profile A 44, art. no. 301203
- PE bead for profile S 37, art. no. 301093

Bead, optional:

- Brush seal, long, for profile A 36, A 44 and K 36, art.-no. 301065

### Guide rail 60-75



## Additional product information

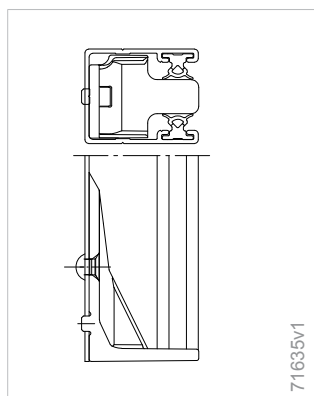
### Fields of application for guide rails per shutter profile

| Guide rail       | Profile A 36 | Profile A 44 | Profile A 53 | Profile A 56 | Profile K 36 | Profile K 52 | Profile K 55 | Profile S 37 |                               |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------------------|
| Guide rail 20-19 |              |              |              |              |              | 2000 mm      | 2000 mm      |              | Planning                      |
| Guide rail 25-19 |              |              |              |              |              | 2000 mm      | 2000 mm      |              |                               |
| Guide rail 28-19 |              |              |              |              |              | 2500 mm      | 3000 mm      |              |                               |
| Guide rail 30-19 | 3000 mm      | 3000 mm      |              |              | 2000 mm      |              |              |              | Front-mounted roller shutters |
| Guide rail 30-25 | 3000 mm      | 3000 mm      | 3000 mm      |              | 2000 mm      | 2500 mm      |              | 3000 mm      |                               |
| Guide rail 30-28 |              |              | 3000 mm      | 3000 mm      |              | 2500 mm      | 3000 mm      |              |                               |
| Guide rail 40-28 |              |              | 3800 mm      | 4000 mm      |              | 2500 mm      | 3300 mm      |              | Top-mounted roller shutters   |
| Guide rail 60-28 |              |              | 3800 mm      | 4500 mm      |              | 2500 mm      | 3300 mm      |              |                               |
| Guide rail 38-41 | 3000 mm      | 3000 mm      | 3000 mm      |              | 2000 mm      | 2500 mm      | 3000 mm      | 3000 mm      |                               |
| Guide rail 60-75 | 3000 mm      | 3000 mm      | 3500 mm      |              | 2000 mm      | 2500 mm      |              | 3000 mm      |                               |

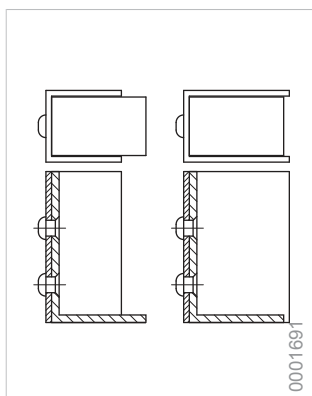
These values apply when the maximum widths in mm in accordance with DIN 18073 are taken into account.

### End closures for guide rails

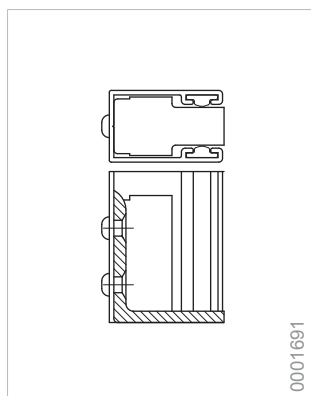
End closure for guide rail 30-25



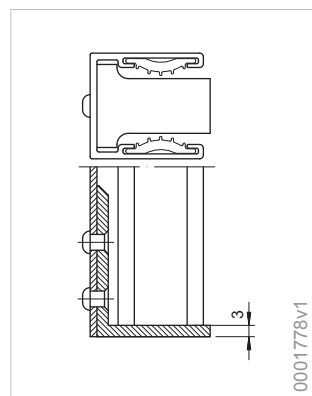
End closure for guide rail 20-19, 28-19



End closure for guide rail 30-19



End closure for guide rail 30-28, 40-28, 60-28



## Additional product information

### Colour allocation for guide rail cover plugs

- For guide rails with screw-fixed fixings for wall installation (drilled hole 2), plastic cover plugs are included in the scope of delivery.
- The colour of the cover plugs is matched to the respective colour of the guide rails.
- For all colours within the WAREMA Colour World, a corresponding allocation is defined.
- For colours which are different to the colours of the WAREMA Colour World, we supply black cover plugs.
- If a cover plug colour is desired which is different to this definition, the desired colour must be explicitly specified when ordering.



## Components

### End rails

#### Clean closure

The end rail is the lower end profile of a roller shutter curtain. End rails are available in different models.

#### Various models

End rails are available as triangular design end rails, flat end rails or split 90°-profile end rails, depending on the support product.

#### Bottom sealing

Our end rails can be optionally equipped with a piping seal.



#### Product characteristics

- Stable, extruded profile
- Different variants available
- Available with or without sealing strip

# End rails

- End rails without sealing strip as standard
- Lengths in stock generally 6 metres

## Important information for end rail colour assignment:

When ordering loose roller shutter curtains, a predefined allocation applies to the end rail colour. For allocation, see chapter Planning/Colours area. Colours deviating from this procedure are subject to a surcharge.

The predefined colour allocation does not apply to orders of finished elements. Here, the colour of the end rail should be explicitly specified on the order form.

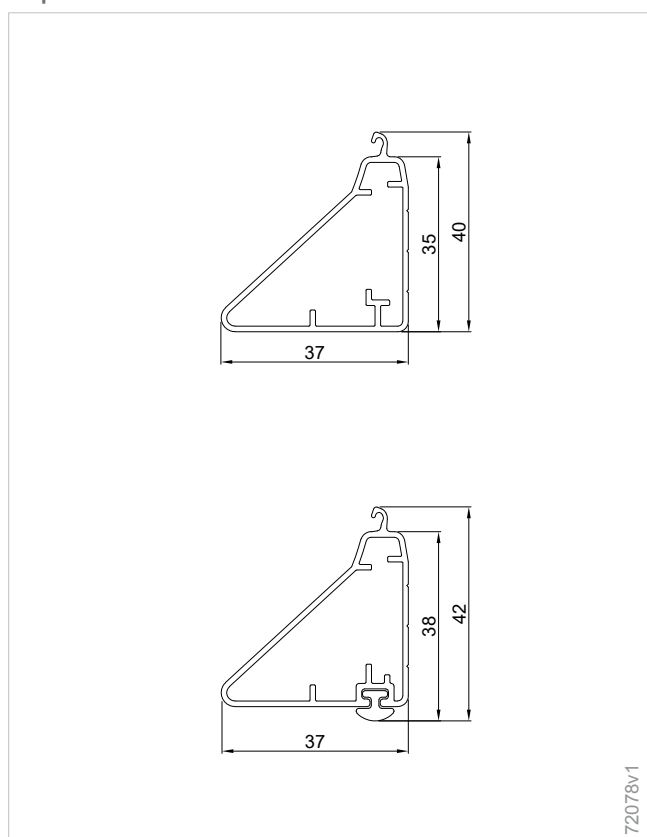
## Triangular design end rail

### Triangular design end rail

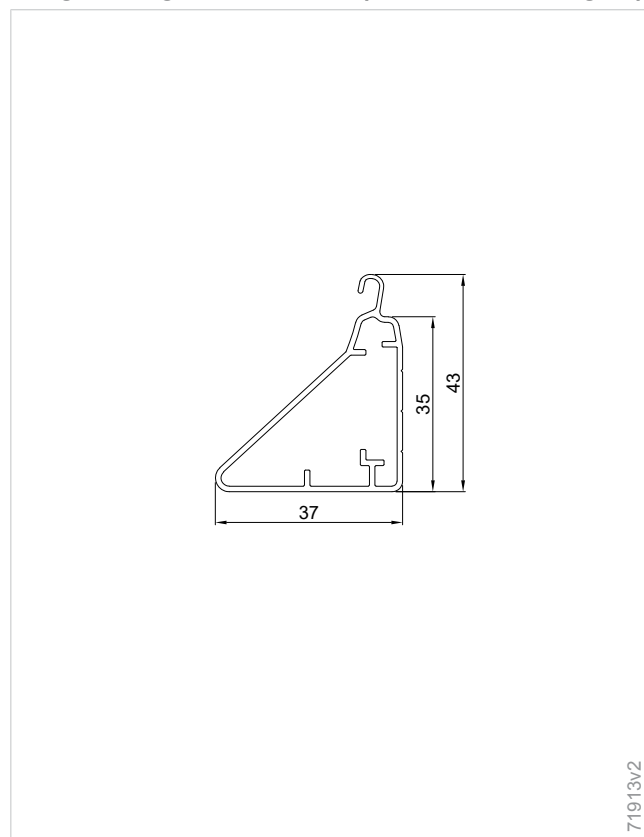
|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

- The triangular design end rail can only be used with front-mounted roller shutters. It ensures an attractive closure for belt and crank-operated units. The triangular design end rail closes nearly fully flush on motor-operated units.
- For front-mounted roller shutters V4 and V6, a triangular design end rail is used as standard in the standard model without insect screen.
- For front-mounted roller shutters V10, a triangular design end rail is used, regardless of the insect screen.

### Triangular design end rail for mini profile, without/with sealing strip



### Triangular design end rail for maxi profile, without sealing strip

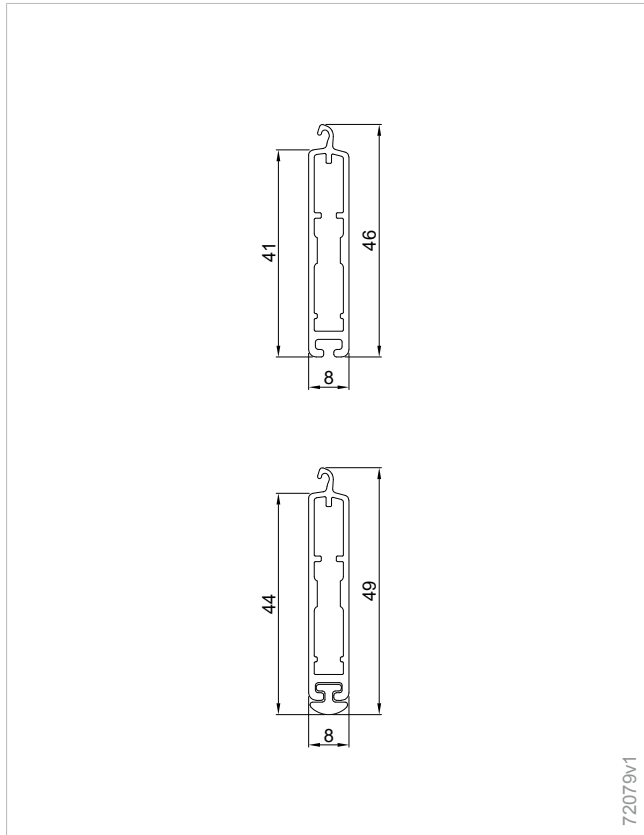


End rail for maxi profile, only available without sealing strip.

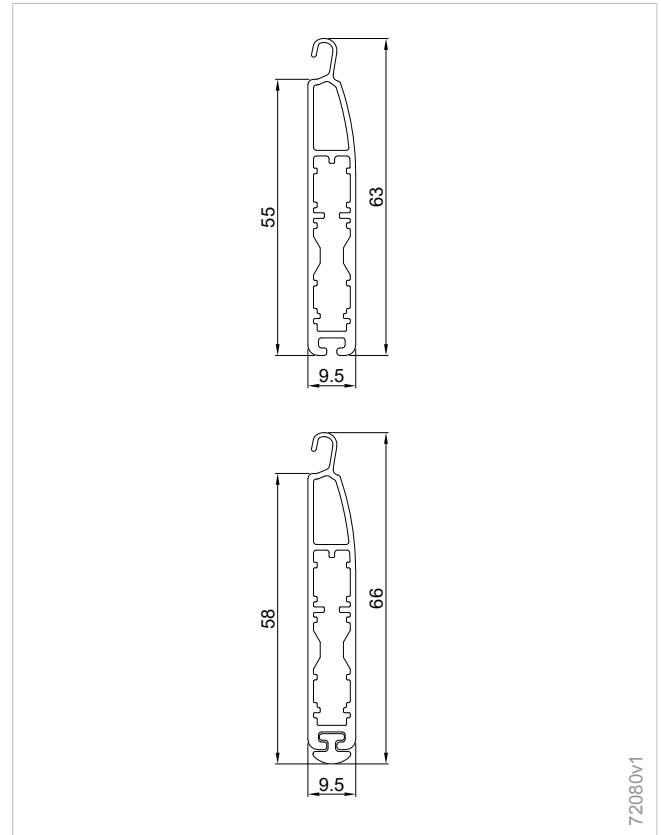
## Flat end rail

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

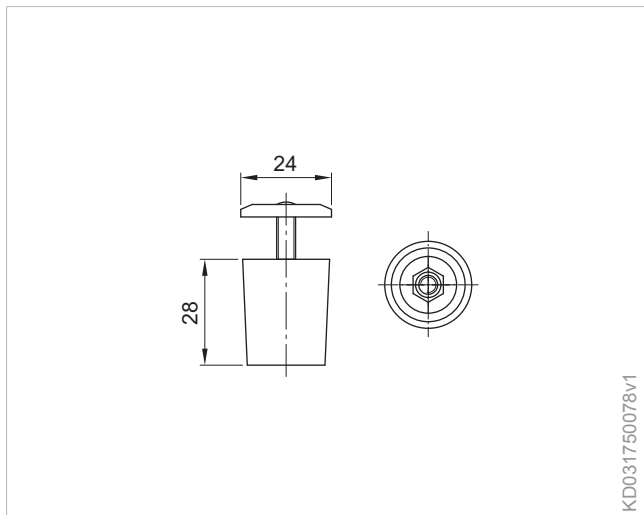
**Flat end rail for mini roller shutter curtain with/without sealing strip, for left-rolling blind**



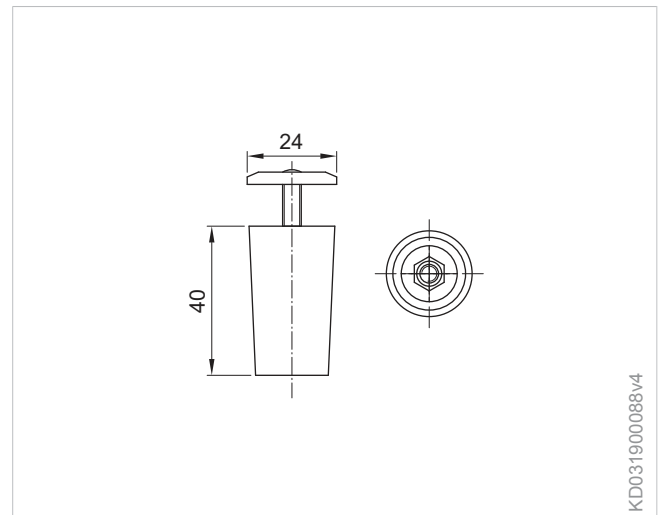
**Flat end rail for maxi roller shutter curtain with/without sealing strip, for left-rolling blind**



**Limit stop for flat end rail, 28 mm projection**



**Limit stop for flat end rail, 40 mm projection**



Use in:

- Top-mounted roller shutters AU-RO

Use in:

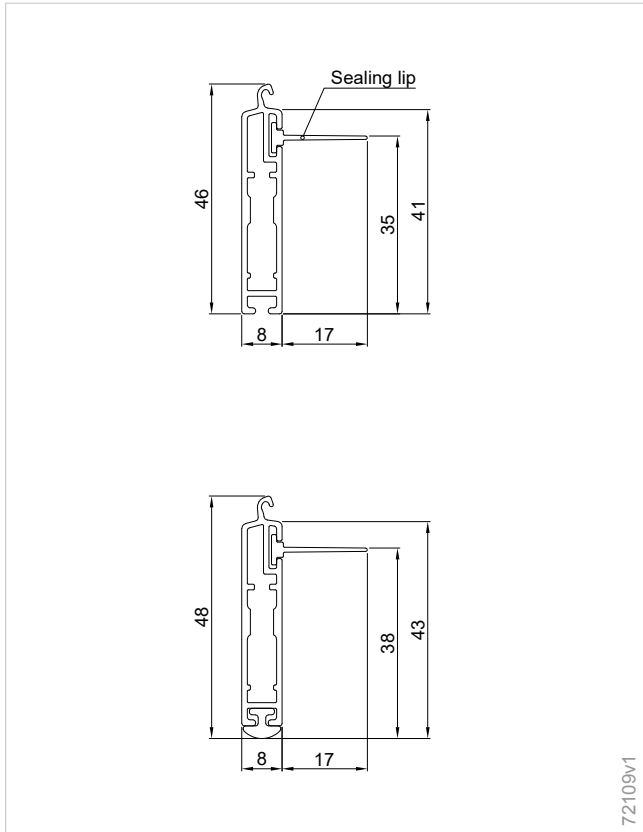
- NA-RO inspection from inside
- NA-RO inspection from outside
- Roller shutter curtain
- Roller shutters for on-site lintel boxes

## Flat end rail with sealing lip

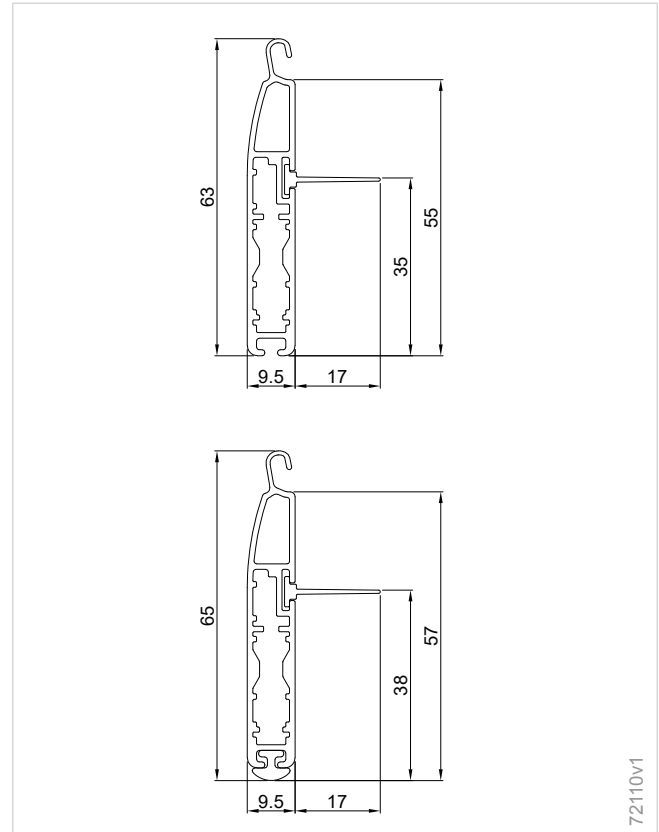
|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

This end rail can only be used with top-mounted roller shutters for new buildings NA-RO.

**Flat end rail with sealing lip for mini profile, with/without sealing strip**



**Flat end rail with sealing lip for maxi profile, with/without sealing strip**



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

Drive variants

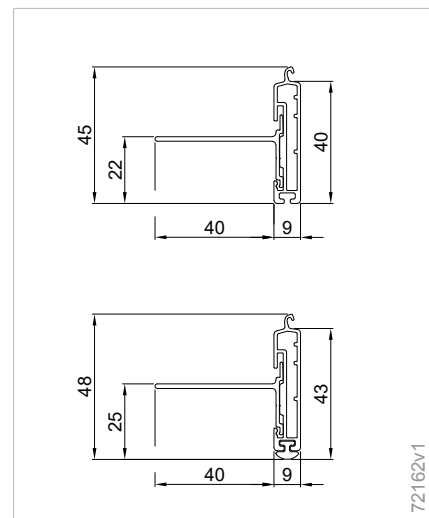
Standards

## Two-piece 90°-profile end rails

|                  |                                        |
|------------------|----------------------------------------|
| Material         | Aluminium, extruded                    |
| Surface          | Powder-coated, Anodised natural colour |
| Optional surface | Anodised coloured                      |

- The offset of the 90°-profile end rail depends on the guide rail type
- 32 mm offset as standard, alternatively 24 mm, 43 mm, 63 mm

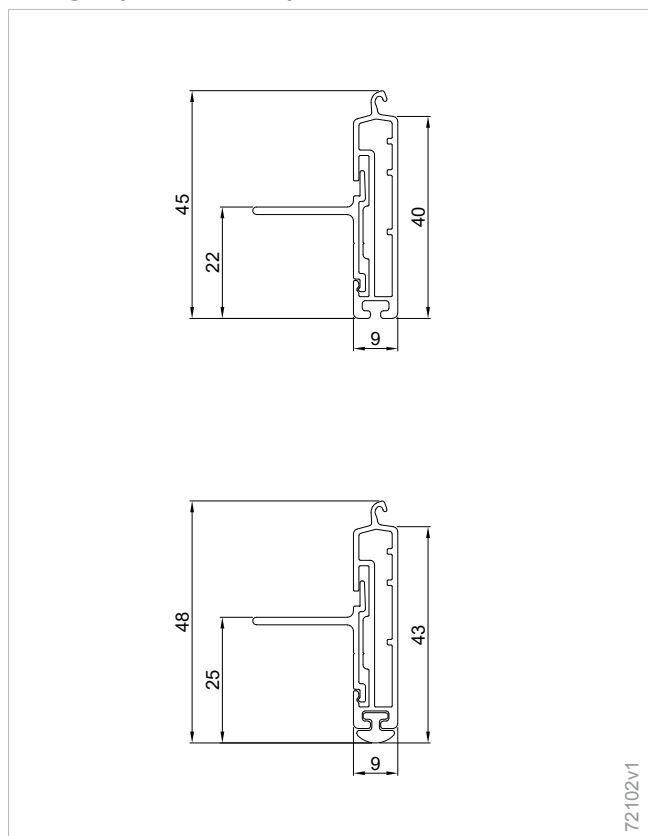
**Two-piece 90°-profile end rail for mini profiles, without/with sealing strip, long limit stop**



Use in:

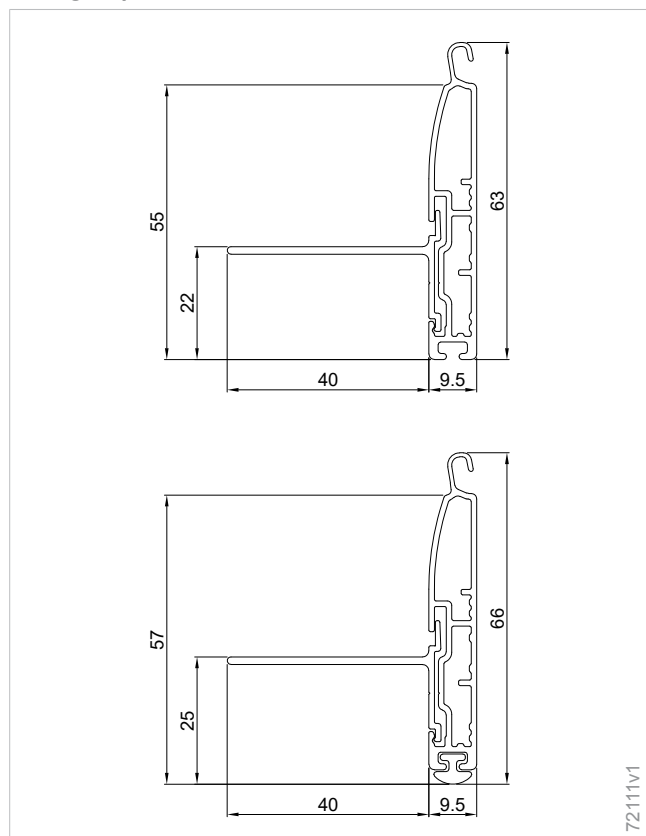
- NA-RO with mini profile
- RE-RO

**Two-piece 90°-profile end rail for mini profiles, without/with sealing strip, short limit stop**



Use in AU-RO

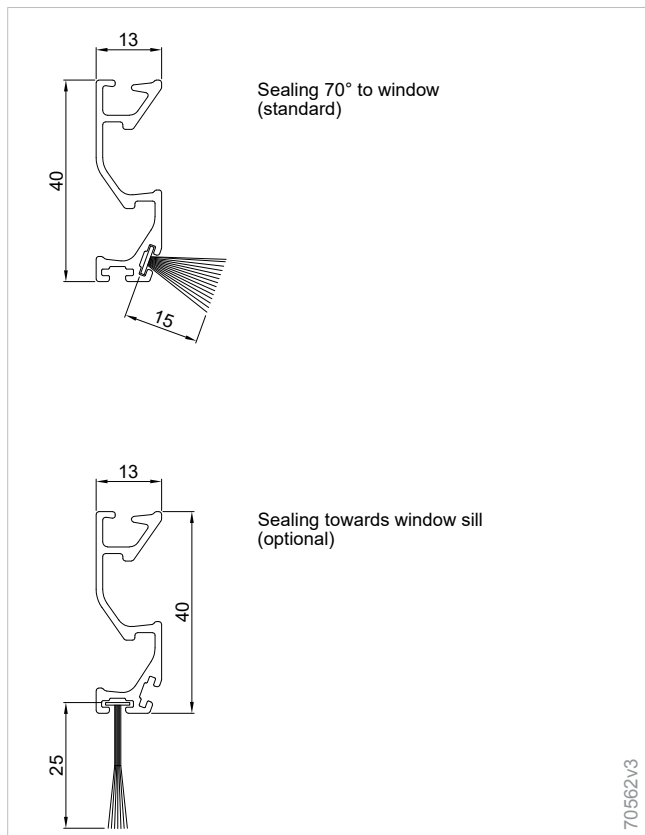
**Two-piece 90°-profile end rail for maxi profiles, without/with sealing strip**



# Handle rail for insect screen roller blind

|          |                     |
|----------|---------------------|
| Material | Aluminium, extruded |
| Surface  | Powder-coated       |

## Insect screen handle rail

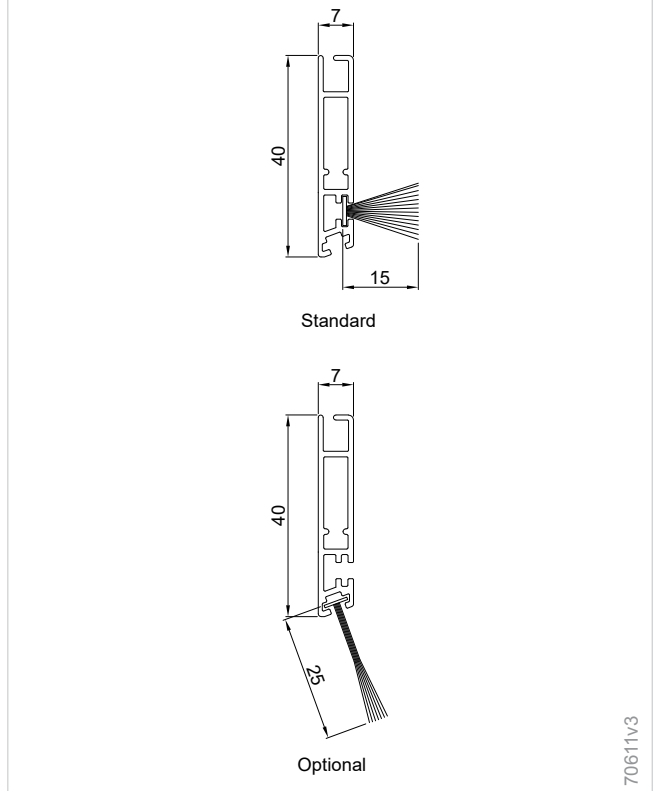


Use in:

- V4, V6, V10
- NA-RO inspection from outside

## Insect screen handle rail

For optional use of an insect screen roller blind



Use in:

- NA-RO inspection from inside
- AU-RO
- RE-RO

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

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## Further information

TechDataPLUS Components for roller shutters  
<https://docs.warema.com/1.1318.4>



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## Drive variants

### Motor

**Always the perfect motorisation for your sun shading product – with drive systems from WAREMA**

### Quality

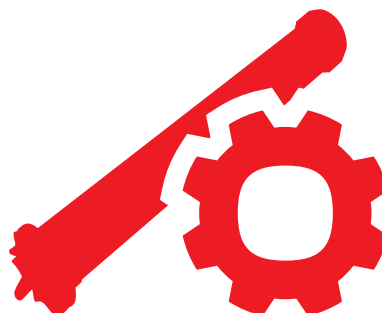
We only use innovative drives from reliable European quality suppliers. All drive solutions fulfil high quality standards. They are adapted to the corresponding WAREMA sun shading products and control systems.

### Know-how

WAREMA oversees the development of new drives - from the conception until market launch. Each WAREMA drive goes through a comprehensive series of tests.

### Perfectly matched

The drive setting instructions enable very comfortable installation and commissioning in the WAREMA sun shading product.



# Roller shutter tubular motor, wired

Technologies at a glance

## Basic motorisation with electronic limit switch-off

- Functions perfectly adapted to the roller shutter type
- Convenient adjustment of the motor limit positions using programming cables, in particular our new WAREMA Smart programming cable
- Can be used universally for all roller shutters
- Torque overload protection or alternatively position switch-off in the upper limit position
- Torque overload protection in the lower limit position

## Drive with electronic limit switch-off for WAREMA SecuKit

- Combination of our high-grade motor functionality with additional manual operation via belt
- Shutter protection functions are still available without restriction

## Drives with mechanical limit switch-off

- Proven track record
- Reliable and precise
- Intuitive setting

## Motors with additional collapsible crank ZHK

- Alternative manual operating option in the event of motor or power failure
- The crank is only intended for use in the event of a motor failure and is not suitable for continuous operation

**As there are no legal standards concerning the shading of emergency and escape routes with sun shading products, the use of a motor with connection for additional crank operation must, taking the fire protection concept into account, be clarified with the responsible body (e.g. Section 66 of the MBO [German building regulations for the standardisation of regional state building regulations]) and must be approved by this body. Here the high reduction of the crank gear (1:18) must be given particular consideration. Product details can be found in the current technical documentation.**

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## Basic motor

### Description:

- Upper and lower torque overload protection
- Upper position switch-off (optional)
- Optimal box closure (with upper torque overload protection)
- Soft stop (with upper torque overload protection)
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Functions perfectly adapted to the roller shutter type
- Convenient adjustment of the motor limit positions using programming cables, in particular our new WAREMA Smart programming cable
- Can be used universally



|                                  |                                                                |
|----------------------------------|----------------------------------------------------------------|
| Frequency                        | 50 Hz                                                          |
| Degree of protection             | IP 44                                                          |
| Motor construction type          | Tubular motor                                                  |
| Torque                           | 8 - 30 Nm                                                      |
| Speed                            | 17 U/min                                                       |
| Rated voltage                    | 230 V AC                                                       |
| Limit switch-off                 | Electronic                                                     |
| Motor operating type             | Wired                                                          |
| Nominal current                  | 0,45 - 0,9 A                                                   |
| Rated power consumption          | 100 - 205 W                                                    |
| Idle losses in standby           | No                                                             |
| Minimum runtime at 23 °C         | 4 min                                                          |
| Motor line                       | 1200 mm                                                        |
| Overheat protection              | Yes                                                            |
| Operating temperature            | -10 - 40 °C                                                    |
| Operating temperature, temporary | -20 - 80 °C                                                    |
| Motor lines                      | - H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA             |
| Test/programming cable           | - WAREMA Smart programming cable<br>- Becker programming cable |

## WAREMA SecuKit, motor with additional belt operation

### Description:

- Upper and lower torque overload protection
- Optional box closure
- Soft stop
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Combination of our high-grade motor functionality with additional manual operation via belt
- Shutter protection functions remain available without restriction.

|                                  |                                                                |
|----------------------------------|----------------------------------------------------------------|
| Frequency                        | 50 Hz                                                          |
| Degree of protection             | IP 44                                                          |
| Motor construction type          | Tubular motor                                                  |
| Torque                           | 8 Nm                                                           |
| Speed                            | 17 U/min                                                       |
| Rated voltage                    | 230 V AC                                                       |
| Limit switch-off                 | Electronic                                                     |
| Motor operating type             | Wired                                                          |
| Nominal current                  | 0,45 A                                                         |
| Rated power consumption          | 100 W                                                          |
| Idle losses in standby           | No                                                             |
| Minimum runtime at 23 °C         | 4 min                                                          |
| Motor line                       | 1200 mm                                                        |
| Overheat protection              | Yes                                                            |
| Operating temperature            | -10 - 40 °C                                                    |
| Operating temperature, temporary | -20 - 80 °C                                                    |
| Motor lines                      | – H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA             |
| Test/programming cable           | – WAREMA Smart programming cable<br>– Becker programming cable |

➕ see "WAREMA SecuKit", Page 260



Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

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## Motor with additional collapsible crank ZHK

### Description:

- Upper torque overload protection
- Torque overload protection bottom (can only be used in conjunction with fixed shaft connectors)
- Soft stop (with short relief)
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Drive with connection for additional crank operation
- Alternative manual operating option in the event of motor or power failure
- The crank is only intended for use in the event of a motor failure and is not suitable for continuous operation



|                          |                                                                |
|--------------------------|----------------------------------------------------------------|
| Frequency                | 50 Hz                                                          |
| Degree of protection     | IP 44                                                          |
| Motor construction type  | Tubular motor                                                  |
| Torque                   | 10 - 20 Nm                                                     |
| Speed                    | 17 U/min                                                       |
| Rated voltage            | 230 V AC                                                       |
| Limit switch-off         | Electronic                                                     |
| Motor operating type     | Wired                                                          |
| Nominal current          | 0,7 - 0,8 A                                                    |
| Rated power consumption  | 150 - 170 W                                                    |
| Idle losses in standby   | No                                                             |
| Minimum runtime at 23 °C | 4 min                                                          |
| Motor line               | 1000 mm                                                        |
| Overheat protection      | Yes                                                            |
| Operating temperature    | -10 - 40 °C                                                    |
| Motor lines              | - H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA             |
| Test/programming cable   | - WAREMA Smart programming cable<br>- Becker programming cable |

+ see "Motor with additional collapsible crank ZHK", Page 264

# Roller shutter tubular motor, radio

Technologies at a glance

## EWFS radio motor

- Based on our unidirectional EWFS radio system with a transmission frequency of 433.92 MHz
- Comprehensive range of functions, e.g. teachable comfort position
- Combinable with comprehensive control components such as hand-held transmitters and weather stations

## WMS Radio motor

- Based on our bidirectional WMS radio system with a transmission frequency of 2.4 GHz
- Maximum safety by means of an encrypted radio network
- Accurate moving to intermediate positions
- Exact position feedback
- Can also be operated via smartphone with WAREMA WebControl

**Our highlight: on request, we can program your order with WMS radio motors for the delivered hand-held transmitter ex works, our service – your installation advantage!**

Planning

Front-mounted roller shutters

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## WMS Radio motor type WMS-RT

### Description:

- Upper and lower torque overload protection
- Optional box closure
- Soft stop
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Comfort position (intermediate position)
- Based on our bidirectional WMS radio system with a transmission frequency of 2.4 GHz
- Maximum safety by means of an encrypted radio network
- Accurate moving to intermediate positions
- Exact position feedback
- Can also be operated via smartphone with WAREMA WebControl
- Ex works programming of WMS Radio motors on the supplied hand-held transmitters on request



|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| Frequency                        | 50 Hz                                                                  |
| Transmission frequency           | 2,4 GHz                                                                |
| Degree of protection             | IP 44                                                                  |
| Motor construction type          | Tubular motor                                                          |
| Torque                           | 8 - 30 Nm                                                              |
| Speed                            | 17 U/min                                                               |
| Rated voltage                    | 230 V AC                                                               |
| Limit switch-off                 | Electronic                                                             |
| Motor operating type             | Radio                                                                  |
| Nominal current                  | 0,45 - 0,9 A                                                           |
| Rated power consumption          | 100 - 205 W                                                            |
| Idle losses in standby           | Yes                                                                    |
| Minimum runtime at 23 °C         | 4 min                                                                  |
| Motor line                       | 1200 mm                                                                |
| Overheat protection              | Yes                                                                    |
| Operating temperature            | -10 - 40 °C                                                            |
| Operating temperature, temporary | -20 - 80 °C                                                            |
| Motor lines                      | - H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA                     |
| Test/programming cable           | - WAREMA Smart programming cable<br>- Test cable with locking function |

## WMS radio motor type WMS-RP

### Description:

- Position switch-off bottom
- Upper position switch-off (optional)
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Comfort position (intermediate position)
- Based on our bidirectional WMS radio system with a transmission frequency of 2.4 GHz
- Maximum safety by means of an encrypted radio network
- Accurate moving to intermediate positions
- Exact position feedback
- Can also be operated via smartphone with WAREMA WebControl
- Ex works programming of WMS Radio motors on the supplied hand-held transmitters on request

|                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| Frequency                        | 50 Hz                                              |
| Transmission frequency           | 2,4 GHz                                            |
| Degree of protection             | IP 44                                              |
| Motor construction type          | Tubular motor                                      |
| Torque                           | 8 - 30 Nm                                          |
| Speed                            | 17 U/min                                           |
| Rated voltage                    | 230 V AC                                           |
| Limit switch-off                 | Mechanical                                         |
| Motor operating type             | Radio                                              |
| Nominal current                  | 0,45 - 0,9 A                                       |
| Rated power consumption          | 100 - 205 W                                        |
| Idle losses in standby           | Yes                                                |
| Minimum runtime at 23 °C         | 4 min                                              |
| Motor line                       | 1200 mm                                            |
| Overheat protection              | Yes                                                |
| Operating temperature            | -10 - 40 °C                                        |
| Operating temperature, temporary | -20 - 80 °C                                        |
| Motor lines                      | – H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA |
| Test/programming cable           | – WAREMA Smart programming cable                   |
|                                  | – Test cable with locking function                 |



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Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

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## EWFS radio motor type W-RT

### Description:

- Upper and lower torque overload protection
- Optional box closure
- Soft stop
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Comfort position (intermediate position)
- Based on our unidirectional EWFS radio system with a transmission frequency of 433.92 MHz
- Comprehensive range of functions, e.g. teachable comfort position
- Combinable with comprehensive control components such as hand-held transmitters and weather stations



|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| Frequency                        | 50 Hz                                                                  |
| Transmission frequency           | 433,92 MHz                                                             |
| Degree of protection             | IP 44                                                                  |
| Motor construction type          | Tubular motor                                                          |
| Torque                           | 8 - 30 Nm                                                              |
| Speed                            | 17 U/min                                                               |
| Rated voltage                    | 230 V AC                                                               |
| Limit switch-off                 | Electronic                                                             |
| Motor operating type             | Radio                                                                  |
| Nominal current                  | 0,45 - 0,9 A                                                           |
| Rated power consumption          | 100 - 205 W                                                            |
| Idle losses in standby           | Yes                                                                    |
| Minimum runtime at 23 °C         | 4 min                                                                  |
| Motor line                       | 1200 mm                                                                |
| Overheat protection              | Yes                                                                    |
| Operating temperature            | -10 - 40 °C                                                            |
| Operating temperature, temporary | -20 - 80 °C                                                            |
| Motor lines                      | - H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA                     |
| Test/programming cable           | - WAREMA Smart programming cable<br>- Test cable with locking function |

## EWFS radio motor type W-RP

### Description:

- Upper and lower position switch-off
- Block detection (when raising)
- Obstacle detection (when lowering)
- Freezing protection
- Comfort position (intermediate position)
- Based on our unidirectional EWFS radio system with a transmission frequency of 433.92 MHz
- Comprehensive range of functions, e.g. teachable comfort position
- Combinable with comprehensive control components such as hand-held transmitters and weather stations

|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| Frequency                        | 50 Hz                                                                  |
| Transmission frequency           | 433,92 MHz                                                             |
| Motor construction type          | Tubular motor                                                          |
| Torque                           | 8 - 30 Nm                                                              |
| Speed                            | 17 U/min                                                               |
| Rated voltage                    | 230 V AC                                                               |
| Limit switch-off                 | Mechanical                                                             |
| Motor operating type             | Radio                                                                  |
| Nominal current                  | 0,45 - 0,9 A                                                           |
| Rated power consumption          | 100 - 205 W                                                            |
| Idle losses in standby           | Yes                                                                    |
| Minimum runtime at 23 °C         | 4 min                                                                  |
| Motor line                       | 1200 mm                                                                |
| Overheat protection              | Yes                                                                    |
| Operating temperature            | -10 - 40 °C                                                            |
| Operating temperature, temporary | -20 - 80 °C                                                            |
| Motor lines                      | – H05RR-F 4 G 0.75 mm <sup>2</sup> bk, type WAREMA                     |
| Test/programming cable           | – WAREMA Smart programming cable<br>– Test cable with locking function |



Planning

Front-mounted roller shutters

Top-mounted roller shutters

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# Roller shutter tubular motor, 12 V

## 12 volt drive

### Description:

- Position switch-off bottom
- Upper torque overload protection
- Block detection (when raising)

|                                  |               |
|----------------------------------|---------------|
| Degree of protection             | IP 44         |
| Motor construction type          | Tubular motor |
| Torque                           | 10 Nm         |
| Speed                            | 12 U/min      |
| Rated voltage                    | 12 V DC       |
| Limit switch-off                 | Mechanical    |
| Motor operating type             | Wired         |
| Nominal current                  | 2,4 A         |
| Rated power consumption          | 29 W          |
| Idle losses in standby           | No            |
| Minimum runtime at 23 °C         | 5 min         |
| Motor line                       | 2500 mm       |
| Overheat protection              | No            |
| Operating temperature            | -10 - 40 °C   |
| Operating temperature, temporary | -20 - 80 °C   |



### Can be used with model:

- V10 with solar drive
- S10 with solar drive
- Support products with Battery module UP supplementary accessory

+ see "Solar drive", Page 256

+ see "Battery module UP", Page 268

## Additional product information

### Functions in detail

#### Position switch-off (motor limit position)

Drive stops precisely at an exactly adjustable position.

#### Torque overload protection (motor limit position)

Drive moves against a system stop. Switch-off torque optimally matches the sun shading product.

#### Soft stop top

Particularly sensitive torque overload protection in the upper limit position

#### Optional box closure

The shutter box is always properly closed.

#### Block detection (raising)

Drive stops in the event of blockages and thus protects the sun shading product from damage

#### Obstacle detection (lowering)

Drive stops in the event of obstacles and thus protects the sun shading product from damage.

#### Freezing protection

More safety switch-off if end rail frozen or ice has formed on the sun shading product

#### Comfort position (intermediate position)

Individually adjustable for EWFS and WMS radio motor.

#### Drive via motor with additional collapsible crank ZHK

The product can also be operated via a collapsible crank in the event of a power failure.

### Note on motor line

- Roller shutter motors are delivered with a 1000 mm motor line as standard.
- Special lengths in 2500 mm, 5000 mm or 10000 mm are optionally available
- Motor lines are supplied without a plug-in connector as standard.

WAREMA only uses halogen-free lines which are resistant to UV rays, approved for permanent use outside and correspond to the requirements of the standard.

As an additional service, preassembled cable whips, line extensions and rolled products can be ordered from WAREMA in standard dimensions. Special lengths possible on request.

Planning

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## Drive variants

### Manual operation

#### For small and medium sizes

A belt or crank drive is ideal when manual operation with small to medium unit sizes is desired.

#### Tried and tested quick system

The tried, tested and reliable belt operation system makes for extremely fast, simple and easy operation of the roller shutter curtain. Different technical models such as extendible belt discs, belt deflections and many more are available, depending on requirements.

#### Material-friendly operation

The even crank drive power transmission makes for material-friendly and smooth running of the roller shutter curtain during operation. Various transmission types can be used depending on the selected sun shading product. Different technical models are available depending on requirements.



# Crank

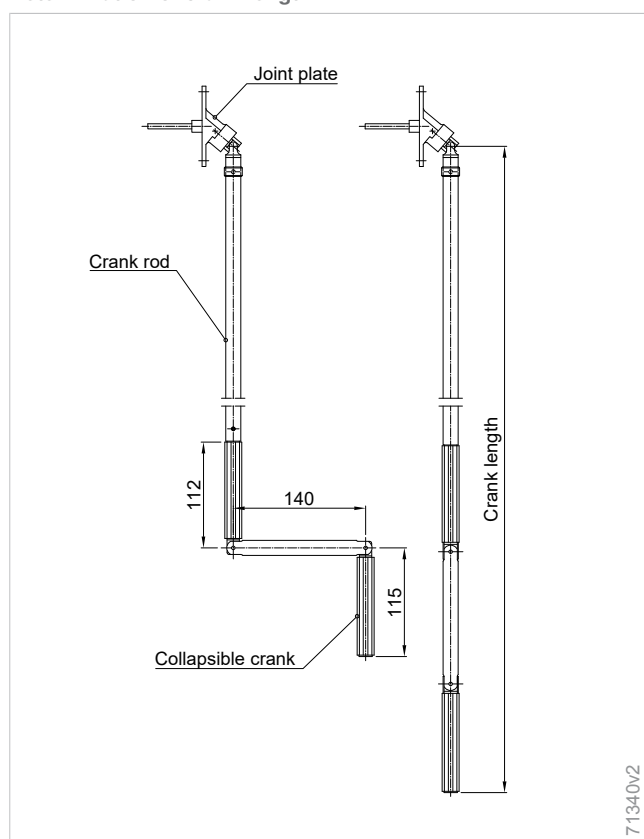
## Scope of delivery:

- Crank incl. crank rod, collapsible crank and sealed joint plate as well as square with thermal barrier (except for top-mounted roller shutters AU-RO: here no thermal barrier)
- Standard crank length 1200 mm, deviations must be specified.
- The crank rod is supplied loose and connected with the crank rod cone using a plastic clip (with integrated metal splint) on site. The crank can be uninstalled via the clip connection if necessary.
- Incl. plastic crank holder, grey, white or brown
- Different crank gears are used depending on the support product and unit size.

|                   |                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material          | Aluminium                                                                                                                                                                         |
| Optional material | Steel                                                                                                                                                                             |
| Surface           | Anodised natural colour                                                                                                                                                           |
| Optional surface  | Powder-coated, Anodised coloured                                                                                                                                                  |
| Material, notes   | The stated values for "Optional finish" only apply to powder coating in RAL 9016 or an anodised variant in colour C34. All other colour variants are subject to additional costs. |

**"Crank holder with magnet" option:** For a "crank holder with magnet" model, only a steel crank can be used.

## Determination of crank length



Crank length = extended length from the fulcrum of the pivot bearing to the lower end of the crank

## Crank with internal gear

- The crank gear is located inside the box. Joint plate and crank rod are located inside the roller shutter curtain running area.
- Different gear types are used depending on the area:
  - Crank type 1:
    - For smaller areas
    - Screw gear, ratio 6:1
  - Crank type 2:
    - For larger areas
    - Bevel gear, ratio 4:1

## Crank with extendible gear

- The crank gear can be continuously extended and is located outside the roller shutter curtain running area.
- Crank gear: screw gear, ratio 6:1

**Type-dependent limitations:** V4, V6, V10: only possible with box shapes Rectangular, Round and Square

## Crank (for on-site lintel boxes)

Bevel gear, ratio 5:1



# Belt

## Scope of delivery:

- Depending on the support product, the components for belt operation are located inside the box or on the shaft, including the belt disc and belt.
- Room-side components: belt guiding roller and belt winder (except for RE-RO and roller shutters for on-site lintel boxes: here no belt winder is included as standard, however is optionally available).
- Belt 14 mm or 23 mm wide depending on the support product (observe information in the table under Additional product information or Notes on the individual product pages)
- Belt winders and belt guiding rollers are available in white as standard and in brown as an option.

**A model with step-up gear is also optionally available depending on the support product.**

|                                 |                                                                |
|---------------------------------|----------------------------------------------------------------|
| Material                        | Polyester                                                      |
| Brush guiding rollers           | – Brush guiding roller, white                                  |
| Brush guiding rollers, optional | – Brush guiding roller, brown                                  |
| Belt winder                     | – Belt winder, white                                           |
| Belt winder, optional           | – Belt winder, brown                                           |
| Belts                           | – Belt grey                                                    |
| Belts, optional                 | – Belt brown (14 mm belt in addition available in black-white) |

## Additional product information

### Belt width - as standard and optional allocation per product

#### Type allocation for 14 mm belt / 23 mm belt

| Product                                  | Belt as standard | Belt, optional | Option condition                                            | Limitation                                                                                                                |
|------------------------------------------|------------------|----------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Front-mounted roller shutters            |                  |                |                                                             |                                                                                                                           |
| V4/V6/V10                                | 14 mm            | 23 mm          | Only in connection with box extension and box shape Plaster | When using a 23 mm belt, the order heights are restricted: box 130, 150 max. 1000 mm, box 170, 190, 210 mm max 2300 mm    |
| Top-mounted roller shutters              |                  |                |                                                             |                                                                                                                           |
| NA-RO inspection from inside and outside | 14 mm            | 23 mm          | Only in connection with box extension type                  | When using a 23 mm belt, the order height is restricted to 2700 mm                                                        |
| AU-RO                                    | 14 mm            | 23 mm          | Only in connection with box extension type                  | When using a 23 mm belt, the order heights are restricted: box 175 max. 1000 mm, box 200 max 2300 mm, box 240 max 2700 mm |
| RE-RO                                    | 23 mm            | -              |                                                             | Standard without belt winder, but optionally available                                                                    |
| Shaft roller shutters                    |                  |                |                                                             |                                                                                                                           |
| SE-RO                                    | 14 mm            | -              |                                                             |                                                                                                                           |
| Roller shutters for on-site lintel boxes | 23 mm            | -              |                                                             |                                                                                                                           |

## Internal belt

- The belt disc is located inside the box. The belt guiding roller is located inside the roller shutter curtain running area.
- This model is available with a narrow belt (14 mm) and with a wide belt (23 mm) (observe information in the individual product pages under "Drives").

## Belt with extendible belt disc (14 mm belt)

- The belt disc can be continuously extended and is located outside the roller shutter curtain running area.
- This model is available with a narrow belt (14 mm) and with a wide belt (23 mm) (observe information in the individual product pages under "Drives").

**Type-dependent limitations:** V4, V6, V10: only possible with box shapes Rectangular, Round and Square

## Belt 23 mm (for on-site lintel boxes)

- The belt disc is located directly on the shaft.
- The bearing components inside the on-site lintel box for a model with a 23 mm belt are included in the scope of delivery (scope of delivery depending on equipment of the on-site lintel box).
- We specify the room-side belt components such as belt guiding roller, belt winder and belt on site. However, they are optionally available.

## Step-up gear for belt

- A step-up gear makes the operation of heavy, belt-operated roller shutters easier.
- Ratio 2:1
- This model is available with a narrow belt (14 mm) and also with a wide belt (23 mm) for roller shutters for on-site lintel boxes (observe information in the individual product pages under "Drives").

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TechDataPLUS Drive variants for roller shutters  
<https://docs.warema.com/1.1319.5>





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## Intended use

The WAREMA roller shutter is an external sun shading and heat protection system that may only be used for visual privacy and to protect against sun and heat in winter and summer. An insect screen is integrated depending on the product variant. Inappropriate use may result in serious hazards.

All WAREMA products designed for external use are designed for wind loads of  $1.1 \text{ kN/m}^2$  in the retracted position. The directive entitled "Wind loads for construction of closures and awnings when retracted" defines the positions at which these products can be installed without requiring special precautions.

Additional loads on the roller shutter in the form of hanging objects or guy ropes could damage the product or cause it to detach from the wall and are therefore not permissible.

Intended use also includes observing these instructions and adhering to the care and maintenance conditions.

Our verbal and written advice explains the optimal use of our products and services to you. This does not release you from the obligation to examine this documentation thoroughly to ensure our products and services are suitable for your intended application. This includes, in particular, the examination of the general condition and load-bearing capacity of the mounting substructure. All relevant information must be given to us when placing the order. If our product cannot be used as stipulated because of incorrect or incomplete information, we or our nominated agents shall accept contractual or non-contractual liability only in the event of deliberate intent or gross negligence. See also the valid terms and conditions.

## Wind resistance of retracted unit

All WAREMA products intended for outdoor use are designed for a wind load of  $1.1 \text{ kN/m}^2$ . The directive entitled "Wind loads for construction of closures and awnings when retracted" (published by the Industrieverband Technische Textilien - Rollladen - Sonnenschutz e.V. - ITRS and the Bundesverband Rollladen + Sonnenschutz e. V.) defines the positions at which these products can be installed without requiring special precautions!

## Wind load zones

To determine which wind resistance class is required for which field of application, an ift guideline has been drawn up on behalf of the German Federal Association of roller shutters and sun shading systems (Bundesverband Rollladen und Sonnenschutz). This guideline "Recommendations for use of exterior closures" divides Germany into wind load zones and terrain categories. The relevant wind load zone and terrain category can then simply be derived from the location of the building. The installation height of the closures specifies the third required indicator.

- **Wind load zones in Austria:** In Austria, the calculation of the wind load according to ÖNORM EN 1991-1-4 must be carried out explicitly for each location.
- **Wind load zones in Switzerland:** For Switzerland, the VSR leaflet on the influence of wind strengths on sun shading and weather protection systems and the standards mentioned therein shall apply.
- **Wind load zones in other countries:** Values must be requested from the local weather services for all other countries.

An allocation of wind zones according to administrative boundaries can also be found at [www.dibt.de](http://www.dibt.de).

Wind load zones in Germany, Source: DIN 1055-4;2005-03



|                                                                                     | Wind load zones | Wind speeds | Wind force |
|-------------------------------------------------------------------------------------|-----------------|-------------|------------|
|  | 1               | 22.5 m/s    | 9          |
|  | 2               | 25 m/s      | 9 - 10     |
|  | 3               | 27.5 m/s    | 10         |
|  | 4               | 30 m/s      | 11         |

Shaft roller shutters

Supplementary accessories

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Drive variants

## Terrain categories, Germany

Using the installation height, the recommended wind resistance class according to the ift guideline can be found in the "Terrain category, installation height..." table.

- **Terrain category I:** Open sea, lakes with a free area of at least 5 km in wind direction, flat land without obstacles
- **Terrain category II:** Area with hedges, single farms, buildings or trees, e.g. agricultural area
- **Terrain category III:** Suburbs, industrial and commercial areas, forests
- **Terrain category IV:** City districts covered to at least 15 % with buildings whose average height does not exceed 15 m.

## Terrain categories, installation height 0-8 m

Wind resistance classes for installation height of closures in middle range 0-8 m

| Terrain category | Wind load zone 1 | Wind load zone 2 | Wind load zone 3 | Wind load zone 4 |
|------------------|------------------|------------------|------------------|------------------|
| I                | 3                | 4                | 4                | 4                |
| II               | 3                | 3                | 4                | 4                |
| III              | 2                | 3                | 3                | 4                |
| IV               | 2                | 3                | 3                | 3                |

## Terrain categories, installation height 8-20 m

Wind resistance classes for installation height of closures in middle range > 8-20 m

| Terrain category | Wind load zone 1 | Wind load zone 2 | Wind load zone 3 | Wind load zone 4 |
|------------------|------------------|------------------|------------------|------------------|
| I                | 4                | 4                | 5                | 5                |
| II               | 3                | 4                | 4                | 5                |
| III              | 3                | 3                | 4                | 4                |
| IV               | 3                | 3                | 3                | 4                |

## Terrain categories, installation height 20-100 m

Wind resistance classes for installation height of closures in middle range > 20-100 m

| Terrain category | Wind load zone 1 | Wind load zone 2 | Wind load zone 3 | Wind load zone 4 |
|------------------|------------------|------------------|------------------|------------------|
| I                | 4                | 5                | 5                | 6                |
| II               | 4                | 5                | 5                | 5                |
| III              | 4                | 5                | 5                | 5                |
| IV               | 4                | 4                | 4                | 5                |

## General information on terrain categories

- The minimum class recommended for use is wind resistance class 2.
- Roller shutter curtains in lower wind resistance classes may be used as the local installation situation permits.
- However, we recommend using a product from the appropriate wind resistance class in order to guarantee a certain standard of quality.

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Front-mounted roller shutters

Top-mounted roller shutters

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### Wind strength – Indication of wind resistance classes

In compliance with DIN EN, roller shutters must be categorised into a wind resistance class. 7 wind resistance classes (0 to 6) are available. Wind resistance class 0 is given either if class 1 was not achieved or if the wind resistance class was not tested.

To determine the wind resistance classes, the respective pressure from the following table is applied to the roller shutter curtain. It became clear that wind resistance mainly depends on the type of roller shutter profile, the guide rail/immersion depth, as well as the roller shutter width used. The maximum order widths per wind resistance class for the different roller shutter types can be found under each product in the individual chapters.

### Wind resistance

| Wind resistance class | Nominal test pressure p (N/m <sup>2</sup> ) | Safety test pressure 1.5 p (N/m <sup>2</sup> ) |
|-----------------------|---------------------------------------------|------------------------------------------------|
| 0                     | < 50                                        | < 75                                           |
| 1                     | 50                                          | 75                                             |
| 2                     | 70                                          | 100                                            |
| 3                     | 100                                         | 150                                            |
| 4                     | 170                                         | 250                                            |
| 5                     | 270                                         | 400                                            |
| 6                     | 400                                         | 600                                            |



## Operating forces

DIN EN 13659 states two possible operating classes for each maximum permitted operating force, depending on the different operating types. We recommend compliance with operating class 1 or 2 in accordance with DIN EN 13659. These represent the current state of the art. Deviating from this, WAREMA can, if necessary, provide larger dimensions on request within the framework of maximum feasibility (design-related values). However, these dimensions are exceeded at the customer's own risk. As an alternative to maintaining the state of the art, the drive type can be changed, e.g. by using a motor.

- The maximum areas in accordance with DIN EN 13659 for operating classes 1 and 2 and the design-related maximum areas for each operating type can be found for the respective product in the construction limit values tables.
- We recommend documenting the handover of the operating instructions with the corresponding notes to the operator in writing.

### Operating force in N

| Operation type                               | Class 1 | Class 2 |
|----------------------------------------------|---------|---------|
| Crank or operation with winch                | 30      | 15      |
| Belt                                         | 90      | 50      |
| Cord or chain                                | 50      | 25      |
| Rod operation, vertical plane                | 90      | 50      |
| Manual operation, horizontal or sloped plane | 50      | 30      |

# Thermal protection and sound insulation

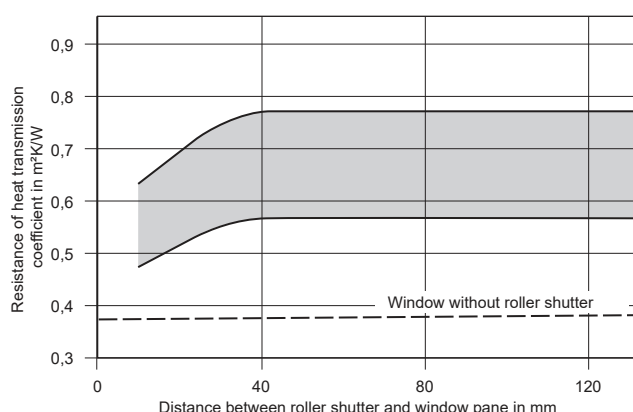
## Thermal protection

The insulating effect is primarily based on the air space between the window and roller shutter. The ideal insulating effect is achieved at a distance of 40 mm. Closing the roller shutter results in an almost static layer of air with this insulating effect. Insulation from the roller shutter itself is negligible due to the low material thickness.

## Sound insulation

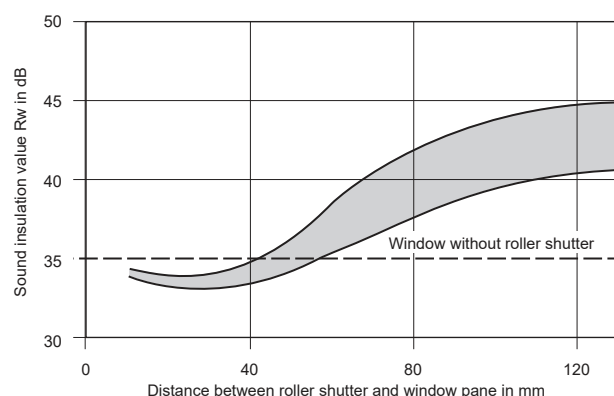
Sound insulation improves with increased distance between window and roller shutter. The ideal distance is between 80 and 120 mm.

**Heat insulation: Influence of distance of roller shutter curtain to window pane**



Resistance of the heat transmission coefficient based on the distance from the outer edge of window pane to the inner edge of the roller shutter

**Sound insulation: Influence of distance of roller shutter curtain to window pane**



Sound absorbing coefficient based on the distance from the outer edge of window pane to the inner edge of roller shutter

## Operation in icy conditions

Operating the product at temperatures around or below freezing point can lead to malfunctions and/or damage to property in the case of unfavourable installation and building situations. Following exposure to condensation water, rain or snow, the product can freeze up at low temperatures. If the control does not have an ice alarm, automatic mode must be switched off during winter. Before operation, the product must be cleared of snow and ice in order to make it serviceable. Operating the product while iced over is forbidden.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

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Drive variants

Standards

## General information

### DIN ISO 9001

The certification according to ISO 9001 is an award that emphasises the high quality level of WAREMA sun shading technology. The requirement covers the entire manufacturing process from design and development to production and through to installation and service.

### CE mark

Motorised external and internal sun shading systems are governed by Machinery Directive 2006/42/EC. An EC Declaration of Conformity is available for these products. External sun shading systems, regardless of the type of drive, are governed by the Construction Products Regulation 305/2011/EC. Declarations of performance are available for these products for the mandated property: wind resistance when extended.

All products governed by the Machinery Directive and/or the Construction Products Regulation are provided with a CE-mark.

Manually operated internal sun shading systems are not governed by either of these two directives or regulations and must not, therefore, be provided with a CE-mark. External or internal sun shading systems conform to the relevant standard, which sets out the details therein:

DIN EN 13659, DIN EN 13561 or DIN EN 13120.

Exceptions - the following products are not provided with a CE-mark: sun sails, patio side screens, insect screens - these products are either not mentioned in the harmonised standards or no testing procedure is defined.



### DIN EN 14201

All WAREMA products are designed to be especially durable. All WAREMA products fulfil durability classes 2 or 3 as standard, tested according to DIN EN 14201.

### Fixing of products

Fixing material for mounting is not included as standard. When ordering, ensure that the selected mounting accessories are suitable for the respective mounting substructure and that the processing instructions of the fixing materials manufacturer are followed.

We will deliver standard fixing materials without surcharge upon request when you indicate the mounting substructure. Recommendations on suitable mounting material can be requested via Applied Engineering in the Roller Shutters Customer Centre.

### 230 V lines

All 230 V lines fulfil Euro class Fca. Special lines are to be requested if necessary.

## Sound insulation in building construction

Currently, no recognised testing method for power-operated closures/awnings exists to determine the emissions in accordance with "DIN 4109-1:2018 Sound insulation in building construction". Because of this, it is not possible to provide the planner with concrete values for the respective sun shading system that they can use to determine the occurring immission in the room requiring insulation in advance with a transfer function.

ITRS e. V. shall provide a leaflet for sun shading in combination with sound insulation in building construction as support up until a recognised testing procedure exists.

This leaflet can be found at:

[https://ivrsa.de/technische\\_unterlagen/](https://ivrsa.de/technische_unterlagen/)

## Products in emergency route areas

Sun shading systems without special options must not be installed in emergency route areas, since they can – in case of a power failure, for example – no longer be raised and thus block emergency routes. Local regulations on emergency routes must be observed.

## Note on drawing contents

The greyed-out sections of the illustration represent interfaces to general trades which, on the whole, must be planned and performed independently and on-site. WAREMA does not provide services for the greyed-out interfaces and assumes no liability for them.

Planning

Front-mounted roller shutters

Top-mounted roller shutters

Shaft roller shutters

Supplementary accessories

Components

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## Black-out blinds

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## Awnings

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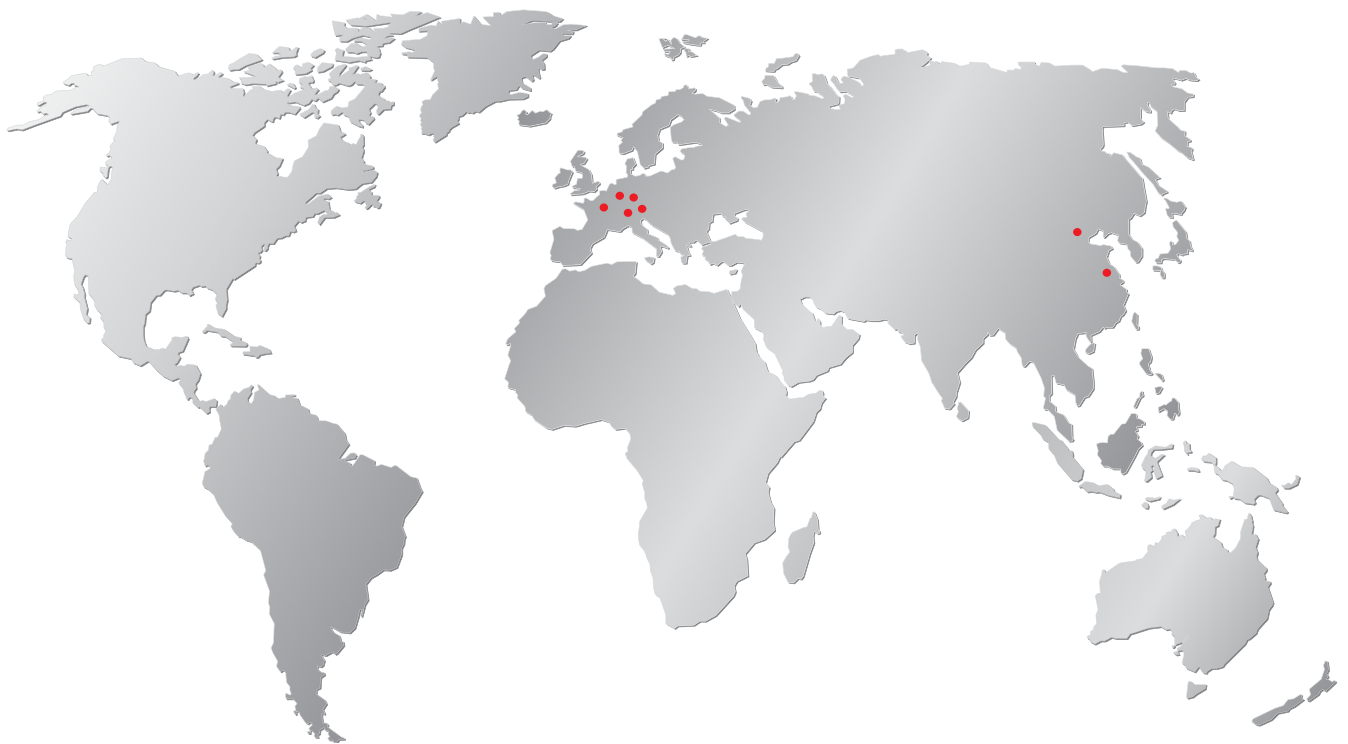
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