

ROLLER SHUTTERS



WIŚNIOWSKI

GATES | WINDOWS | DOORS | FENCES

WINDOW ROLLER SHUTTERS PROTECTA

Intended use: Window roller shutters are intended for use in single-family homes. Their main purpose is to cover windows and glazings to ensure a high level of privacy and protection against strong sun and high levels of noise. In modern design, they are also a universal decorative element, which – thanks to the broad individualization options – suits almost all types of architecture. WIŚNIOWSKI roller shutters have a curtain made of aluminium sheet, infilled with polyurethane foam. The box, access cover, as well as guide rails are also made of aluminium, or PVC in the case of top-mounted roller shutters. It is a durable material that ensures reliable operation and the best protection of the entire building.



INSULATION

The Protecta roller shutters protect your home against sun, cold, wind, and noise. They insulate the home interior from everything that can disturb the peace and security of your family.



SMART CONTROL

Thanks to the smartCONNECTED feature, you can control the Protecta roller shutters from your phone. You are at work and want to close the roller shutters so that the strong sun does not overheat the interior? Just do it remotely without having to move one inch.



MODERN DESIGN

The design of the Protecta roller shutters is all about timeless elegance. That is why they will match any type of architecture. But they will always look their best with WIŚNIOWSKI windows.



PROTECTA A ROLLER SHUTTERS

Technical information

The Protecta A roller shutters are a roller shutter system in which the access cover and the guide rails are made of aluminium. The curtain comprises profiles made of aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

Service access to the inside of the box is provided through the access cover located on the outside of the roller shutter.

These roller shutters can be used in newly built buildings, as well as in existing buildings without having to modify the building structure. Roller shutters can be installed using two methods, either in the window recess, in which case the guide rails are installed to the window frame; or on the façade, in which case the roller shutter dimensions have to be increased to include the guide rail width and the box height.

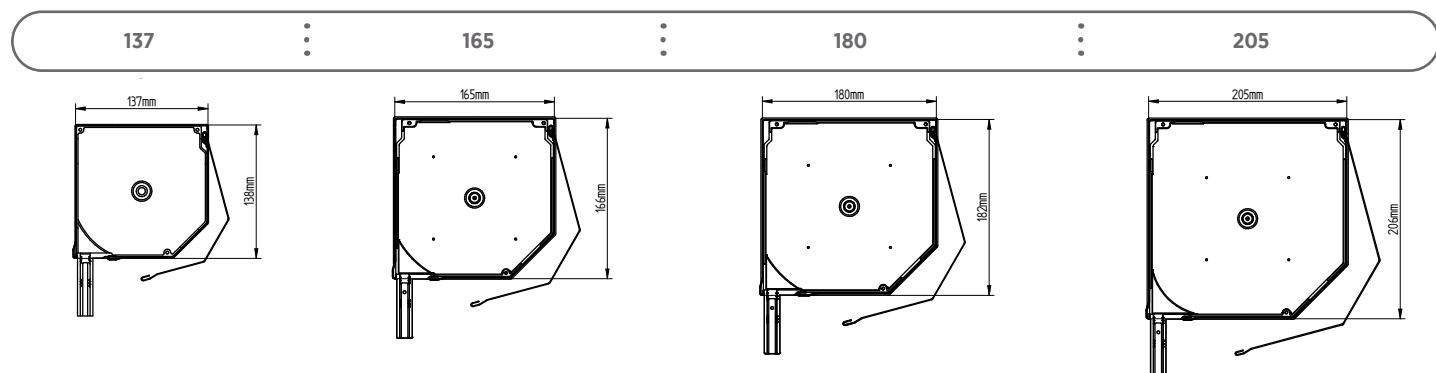
Thanks to the option to integrate the Protecta A roller shutters with a mosquito screen, the home interior is not only protected against high solar exposure in the summer and loss of heat in the winter, but the roller shutters also ensure effective protection against insects.



Structure of the Protecta A roller shutter Standard accessories

- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat caps with a fixed bumper
- guide rails with a brush seal
- access cover fixed with rivets
- the top end position is set in the power operated version
- rubber cable gland
- cord winder in colour: white / brown

Box sizes – Protecta A roller shutter



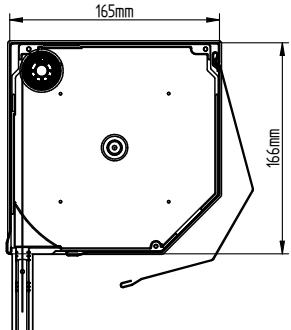
Maximum height including the box for the Protecta A roller shutter [mm]

Box size	Curtain PA39				Curtain PA43			Curtain BP41R-0			
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB	SW40 + WB	SW40	SW60 + WB	SW60
137	1,560	1,600	1,440	1,210	1,410	930	1,150	1,560	1,560	1,440	1,210
165	2,390	2,470	2,280	2,120	2,500	2,110	2,320	2,390	2,390	2,280	2,120
180	2,950	3,020	2,790	2,630	2,980	2,590	2,800	2,950	2,950	2,790	2,630
205	4,320	4,210	4,050	3,780	4,020	3,630	3,850	4,210	4,210	4,050	3,780

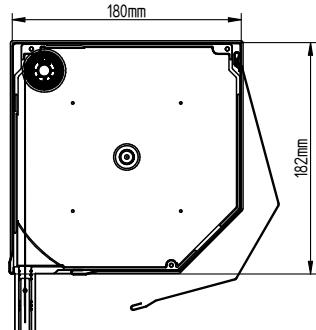


Box dimensions – Protecta A roller shutter with a mosquito screen

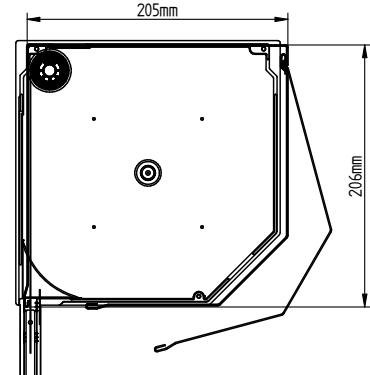
165 + MKT



180 + MKT



205 + MKT



Maximum height including the box for the Protecta A roller shutter with a mosquito screen [mm]

Box size	Curtain PA39				Curtain PA43				Curtain BP41R-0			
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB	SW40 + WB	SW40	SW60 + WB	SW60	
165	1,700	1,690	1,600	1,650	1,600	1,330	1,510	1,700	1,690	1,600	1,650	
180	1,700	1,700	1,700	1,700	2,460	2,120	1,900	1,700	1,700	1,700	1,700	
205	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	

SW – octagonal steel tube with an internal/external weld

WB – self-locking hanger

Guide rail types

PP 53

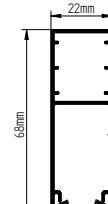
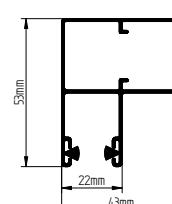
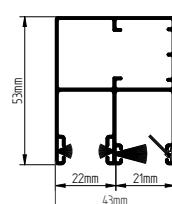
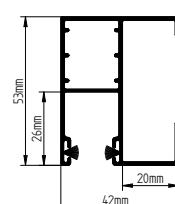
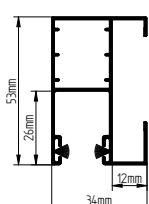
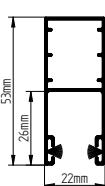
PP 53/ODS

PK 53/ODS 20

PKDO 53

PPMO 53

PP 68



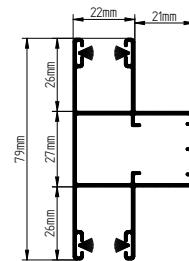
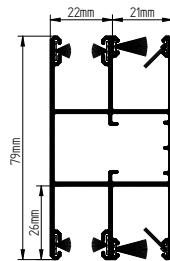
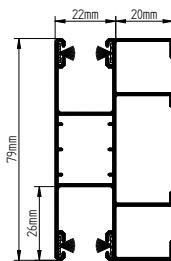
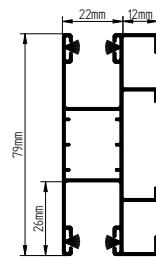
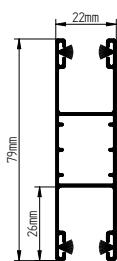
PPD 79

PPD 79 ODS

PPD 79/ODS/20/S

PPDO 79/S

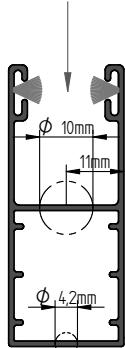
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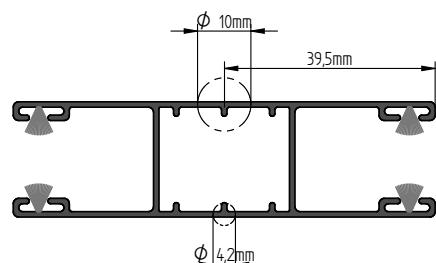
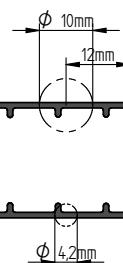


Guide rail drilling options

Drilling type "A", from the side



Drilling type "B", from the face



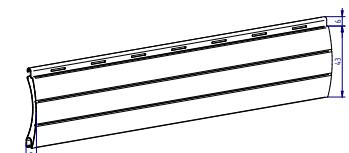
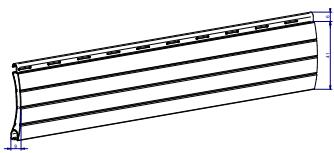
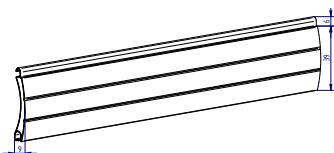
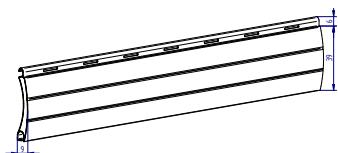
Curtain

PA 39

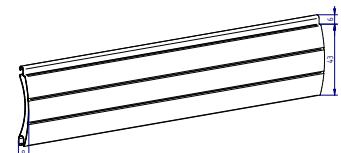
PA 39

PA 41

PA 43



PA 43



Technical data

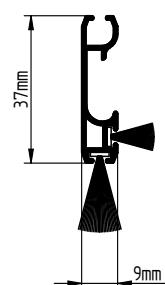
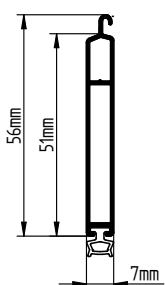
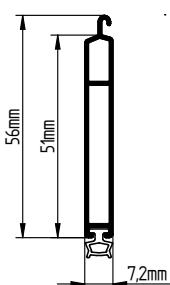
	PA 39	PA 43	BP41R-0
Slat height	39 mm	43 mm	41 mm
Weight 1 m²	2.8 kg	2.6 kg	2.7 kg
Slats per metre of height	25.6 pieces	23.2 pieces	24.4 pieces
Max. roller shutter surface	6m ²	9m ²	6.5m ²

End slats

LDG

LDG-E

LDSM MKT





The type of end slats depends on the colour																				
Colour Slat \	00	01	02	03	05	08	09	20	23	23R	28	28R	30	30R	34	40	43	52R	53R	79R
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	-	
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	x	
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	x	-	-	

Default roller shutter configuration in Golden Oak and Walnut				
PROTECTA A				
Roller shutter type	Curtain	Guide rails	End slat	Access cover
Walnut	Aluprof 28 – varnish			
Golden Oak	Aluprof 30 – varnish			

Protecta A system roller shutter installation methods

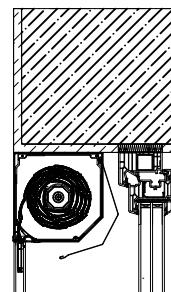
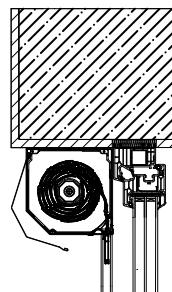
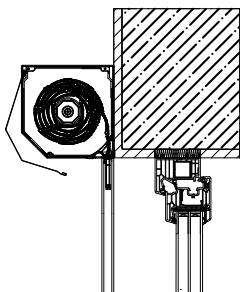
Wall installation
wound outside (anticlockwise)

⋮

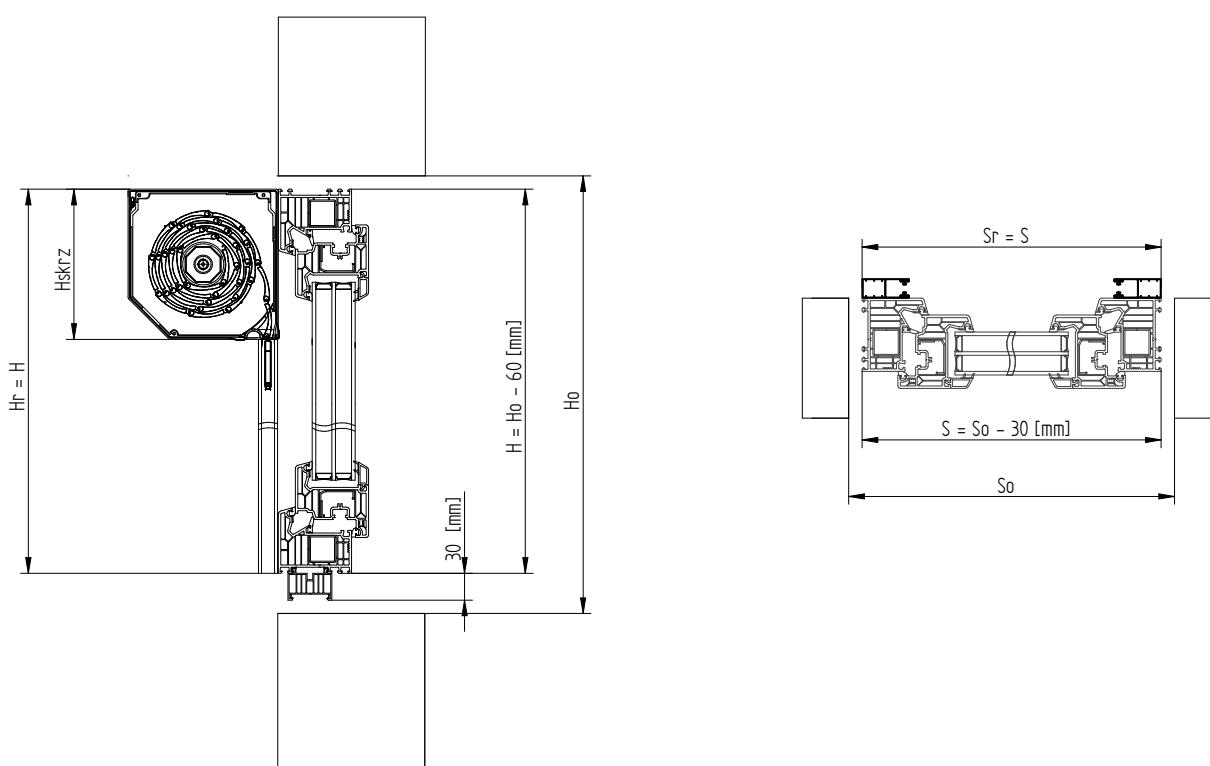
Recess installation
wound outside (anticlockwise)

⋮

Recess installation
wound inside (clockwise)



Dimensioning roller shutters, Protecta A, recess installation





Colours

CURTAIN		END SLAT		GUIDE RAILS		BOX	
Standard colours		Standard colours		Standard colours		Standard colours	
Silver	01	White	02	White	02	White	02
White	02	Grey	03	Grey	03	Grey	03
Grey	03	Dark Brown	08	Dark Brown	08	Dark Brown	08
Dark Brown	08	Brown	09	Brown	09	Brown	09
Brown	09	Anthracite Grey	23	Anthracite Grey	23	Anthracite Grey	23
Anthracite Grey	23	Walnut	28	Walnut	28	Walnut	28
Walnut	28	Golden Oak	30	Golden Oak	30	Golden Oak	30
Golden Oak	30	Special colours		Special colours		Special colours	
Black	20	Silver	01	Silver	01	Silver	01
Light Grey	31	Black	20	Anthracite Grey	23R	Golden Oak	30R
Basalt Grey	33	Anthracite Grey	23R	Walnut	28R	Quartz Grey	34
Quartz Grey	34	Walnut	28R	Golden Oak	30R	Winchester	52R
Concrete Grey	35	Golden Oak	30R	White Pearl Mat	40	Dark Oak	53R
Wenge	36	Quartz Grey	34	Anthracite Grey Pearl Mat	43	Turner Oak	49R
Grey Aluminium	37	White Pearl Mat	40	Winchester	52R	Beige	05
White Pearl Mat*	40	Anthracite Grey Pearl Mat	43	Dark Oak	53R	RAL 9007	-
Anthracite Grey Pearl Mat*	43	Winchester	52R	Bleached Oak*	79R	RAL 9006	-
Turner Oak*	49	Dark Oak	53R	Quartz Grey	34	RAL 9005	-
Winchester	52	Bleached Oak*	79R	Anthracite Quartz F4361014	-	RAL 7039	-
Bleached Oak*	79	Anthracite Quartz F4361014	-	Black Ulti-Matt 47097	-	RAL 7023	-
Woodec Turner Oak Malt**	-	Black Ulti-Matt 47097	-	Woodec Turner Oak Malt	-	RAL 7012	-
Woodec Turner Oak Toffee**	-	Woodec Turner Oak Malt	-	Woodec Turner Oak Toffee	-	RAL 8003	-
Grey Metallic*	75	Woodec Turner Oak Toffee	-	Anthracite Grey 4365003	-	RAL 1013	-
Green	13	Anthracite Grey 4365003	-	Dark Grey Silk 4367003	-	RAL 7038	-
Beige	05	Dark Grey Silk 4367003	-	Walnut 2178007	-	RAL 7016	-
		Walnut 2178007	-	Winchester 49240	-	RAL 7024	-
		Winchester 49240	-	Golden Oak 2178001	-	RAL 1001	-
		Golden Oak 2178001	-	Smooth Basalt Grey 701205083	-	RAL MODERN GRAPHITE	-
		Smooth Basalt Grey 701205083	-	Agate Grey 703805	-	RAL 8014	-
		Agate Grey 703805	-	Smooth Basalt Grey 715505083	-	RAL MODERN BLACK	-
		Smooth Basalt Grey 715505083	-	Silver Grey 715505	-	RAL ANTHRACITE	-
		Silver Grey 715505	-	Earl Platinum 1293010	-	RAL 7047	-
		Earl Platinum 1293010	-	Anthracite Grau Matt F470-6003	-	RAL 5011	-
		Anthracite Grau Matt F470-6003	-	Natural Oak 3118076	-	RAL 7035	-
		Natural Oak 3118076	-	Jet Black 4467062	-	RAL 7037	-
		Jet Black 4467062	-	Green 600505	-	RAL 6005	-
		Green 600505	-	RAL 9007	-	RAL 7002	-



END SLAT		GUIDE RAILS		BOX	
Special colours		Special colours		Special colours	
RAL 9007	-	RAL 9006	-	RAL 1034	-
RAL 9006	-	RAL 9005	-	RAL 8011	-
RAL 9005	-	RAL 7039	-	RAL DB703	-
RAL 7039	-	RAL 7023	-	RAL 7042	-
RAL 7023	-	RAL 7012	-	RAL 6009	-
RAL 7012	-	RAL 8003	-		
RAL 8003	-	RAL 1013	-		
RAL 1013	-	RAL 7038	-		
RAL 7038	-	RAL 7016	-		
RAL 7016	-	RAL 7024	-		
RAL 7024	-	RAL 1001	-		
RAL 1001	-	RAL MODERN GRAPHITE	-		
RAL MODERN GRAPHITE	-	RAL 8014	-		
RAL 8014	-	RAL MODERN BLACK	-		
RAL MODERN BLACK	-	RAL ANTHRACITE	-		
RAL ANTHRACITE	-	RAL 7047	-		
RAL 7047	-	RAL 5011	-		
RAL 5011	-	RAL 7035	-		
RAL 7035	-	Beige	05		
Beige	05	Turner Oak	49		
Turner Oak	49	Turner Oak (film coating)	49R		
Turner Oak (film coating)	49R	Chocolate Brown 887505	-		
Chocolate Brown 887505	-	White 915205	-		
White 915205	-	Siena Rosso 49233	-		
Siena Rosso 49233	-	Sapeli (Mahogany) 2065021	-		
Sapeli (Mahogany) 2065021	-	Brown Black 851805	-		
Brown Black 851805	-	Basalt Grey 701205	-		
Basalt Grey 701205	-	Black FN 301900002	-		
Black FN 301900002	-	Light Grey 725105	-		
Light Grey 725105	-	Ivory 101505	-		
Ivory 101505	-	Quartz Grey 703905	-		
Quartz Grey 703905	-	Steel Blue 515005	-		
Steel Blue 515005	-	RAL 7037	-		
RAL 7037	-	RAL 6005	-		
RAL 6005	-	RAL 7002	-		
RAL 7002	-	RAL 1034	-		
RAL 1034	-	RAL 8011	-		
RAL 8011	-	RAL DB703	-		
RAL DB703	-	RAL 7042	-		
RAL 7042	-	RAL 6009	-		
RAL 6009	-				



PLEASE NOTE

Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.

Guide rail colours include the standard guide rails PP53/S and PPD79/S.

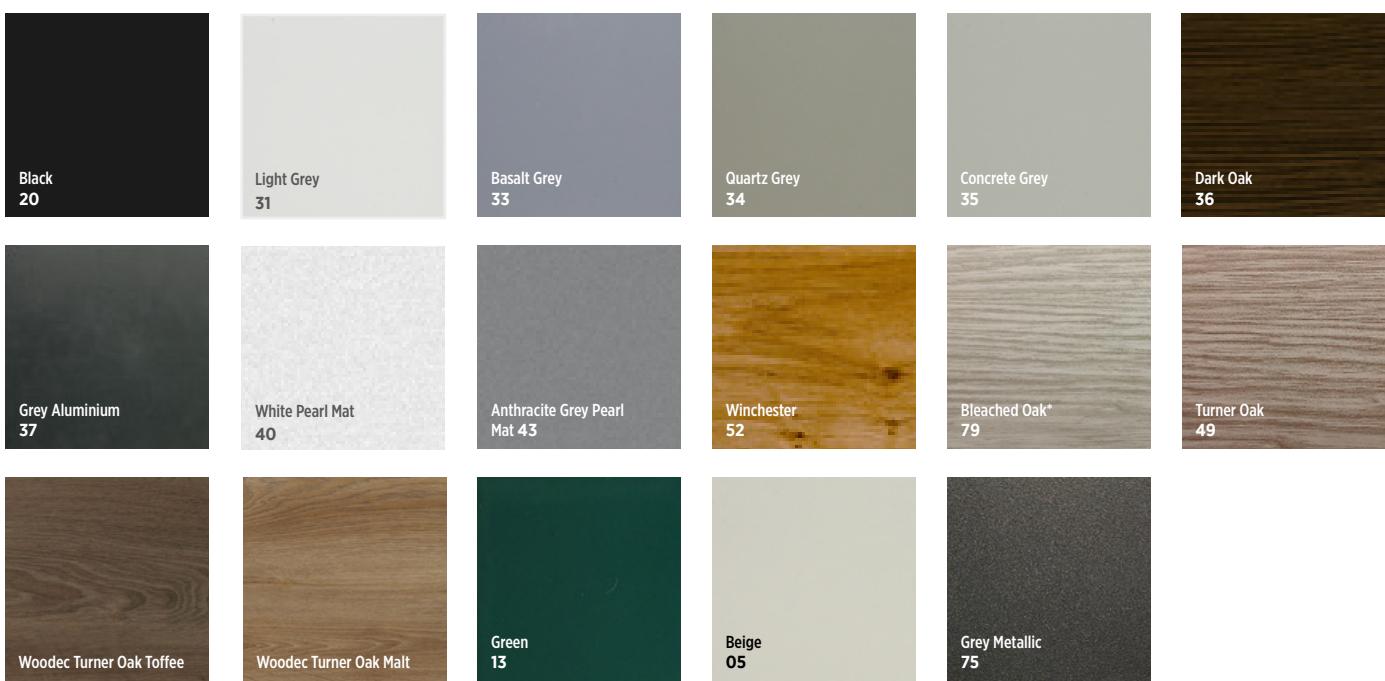
Curtain colours marked with the double asterisk symbol ** are only available with the BP41R-0 curtain.

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



Curtain – special colours





PROTECTA P ROLLER SHUTTERS

Technical information

The Protecta P roller shutters are a roller shutter system in which the access cover and the guide rails are made of aluminium. The curtain comprises profiles made of aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

This system is intended for new buildings and requires proper preparation of the lintel. It can also be installed in already built buildings, but requires certain modifications to be made to the lintel. Before the box installation, the area between the rear wall of the box and the lintel must be insulated, which decreases the risk of a thermal bridge being created. The flush-mounted roller shutter box is designed so that its surface can be covered with a layer of thermal insulation material. With this solution, the flush-mounted roller shutter box becomes a concealed element of the building façade.

The access cover, usually matched with the window colour, is located on the outer side of the building and provides easy access to the inside of the box for servicing. Thanks to the option to integrate the Protecta P roller shutters with a mosquito screen, the home interior is not only protected against high solar exposure in the summer and loss of heat in the winter, but the roller shutters also ensure effective protection against insects.

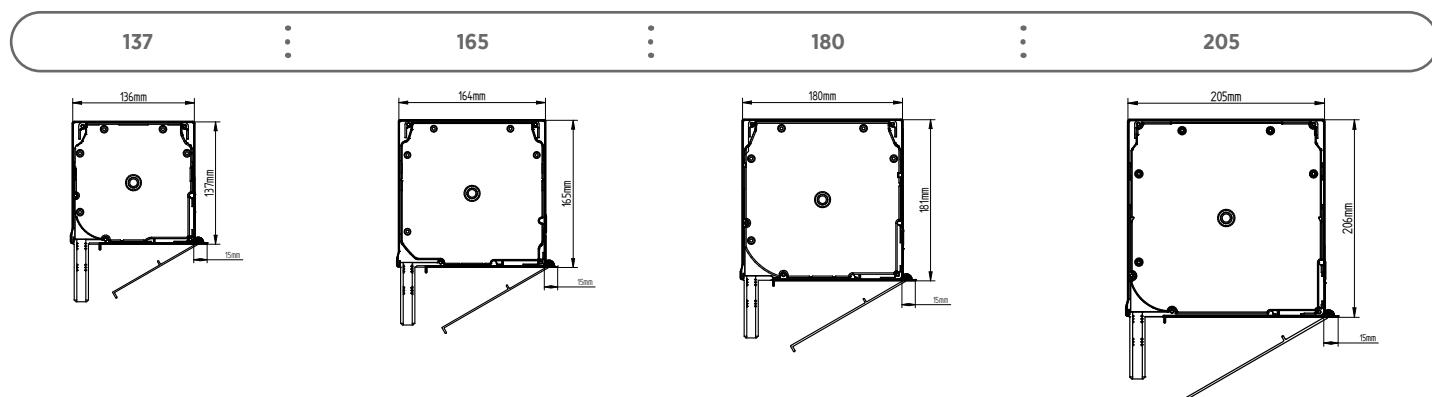


Structure of the Protecta P roller shutter

Standard accessories

- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat caps with a fixed bumper
- guide rails with a brush seal
- guide caps
- access cover fixed with rivets
- the top end position is set in the power operated version
- rubber cable gland
- cord winder in colour: white / brown
- plaster bracket for covering 15 mm

Box sizes – Protecta P roller shutter



Maximum height including the box for the Protecta P roller shutter [mm]

Box size	Curtain PA39				Curtain PA43				Curtain BP41R-0			
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB	SW40 + WB	SW40	SW60 + WB	SW60	
137	1,560	1,600	1,440	1,210	1,410	930	1,150	1,560	1,560	1,440	1,210	
165	2,390	2,470	2,280	2,120	2,500	2,110	2,320	2,390	2,390	2,280	2,120	
180	2,950	3,020	2,790	2,630	2,980	2,590	2,800	2,950	2,950	2,790	2,630	
205	4,320	4,210	4,050	3,780	4,020	3,630	3,850	4,210	4,210	4,050	3,780	

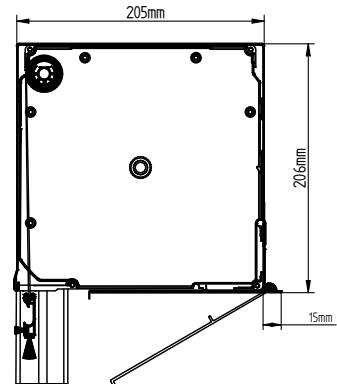
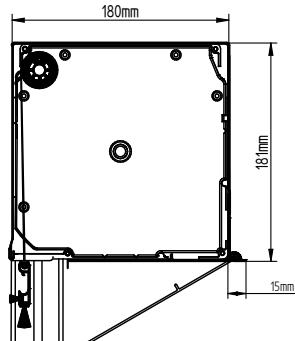
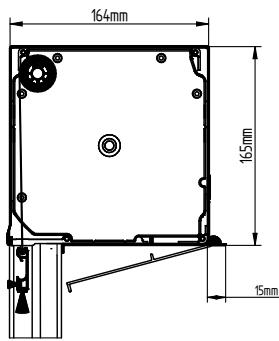


Box dimensions – Protecta P roller shutter with a mosquito screen

165 + MKT

180 + MKT

205 + MKT



Maximum height including the box for the Protecta P roller shutter with a mosquito screen [mm]

Box size	Curtain PA39				Curtain PA43				Curtain BP41R-0			
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB	SW40 + WB	SW40	SW60 + WB	SW60	
165	1,700	1,690	1,600	1,650	1,600	1,330	1,510	1,700	1,690	1,600	1,650	
180	1,700	1,700	1,700	1,700	2,460	2,120	1,900	1,700	1,700	1,700	1,700	
205	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	

SW – octagonal steel tube with an internal/external weld

WB – self-locking hanger

Guide rail types

PP 53

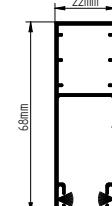
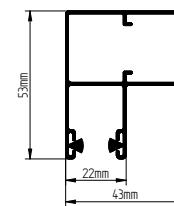
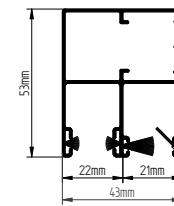
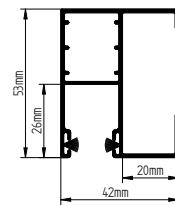
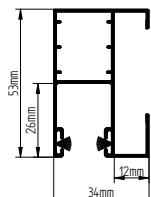
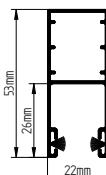
PP 53/ODS

PK 53/ODS 20

PKDO 53

PPMO 53

PP 68



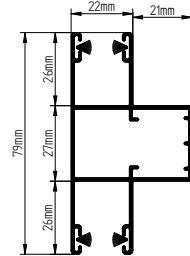
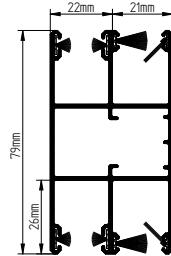
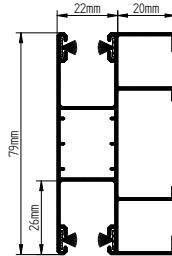
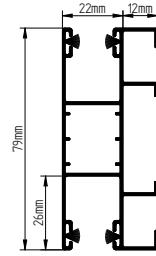
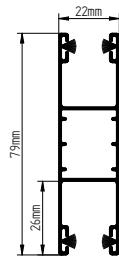
PPD 79

PPD 79 ODS

PPD 79/ODS/20/S

PPDO 79/S

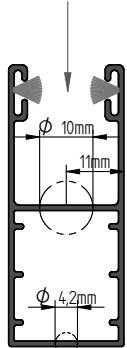
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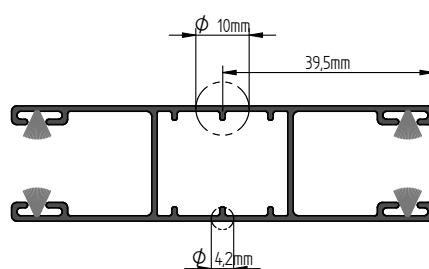
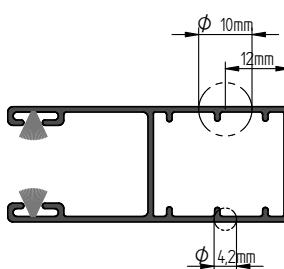


Guide rail drilling options

Drilling type "A", from the side



Drilling type "B", from the face



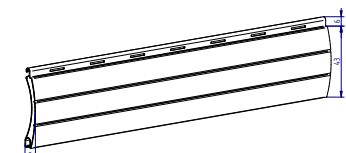
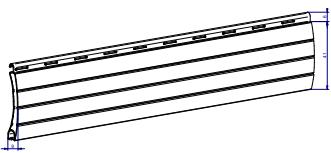
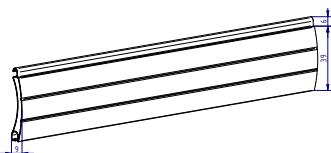
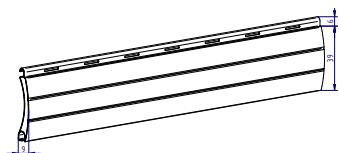
Curtain

PA 39

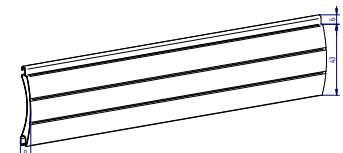
PA 39

PA 41

PA 43



PA 43



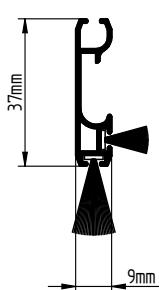
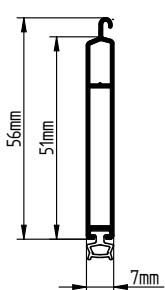
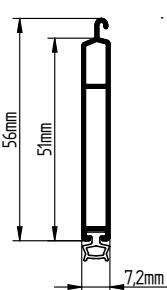
Technical data			
	PA 39	PA 43	BP41R-0
Slat height	39 mm	43 mm	41 mm
Weight 1 m²	2.8 kg	2.6 kg	2.7 kg
Slats per metre of height	25.6 pieces	23.2 pieces	24.4 pieces
Max. roller shutter surface	6m ²	9m ²	6.5m ²

End slats

LDG

LDG-E

LDSM MKT





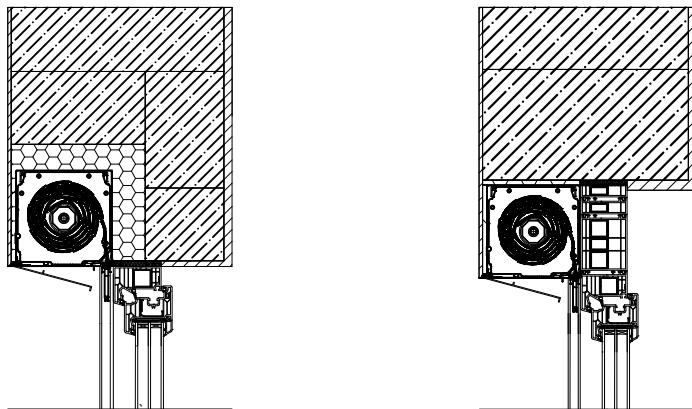
The type of end slats depends on the colour																				
Colour Slat	00	01	02	03	05	08	09	20	23	23R	28	28R	30	30R	34	40	43	52R	53R	79R
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	-	
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	x	
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	-

Default roller shutter configuration in Golden Oak and Walnut				
PROTECTA P				
Roller shutter type	Curtain	Guide rails	End slat	Access cover
Walnut	Aluprof 28 – varnish	Aluprof 28 – varnish	Aluprof 28 – varnish	Film coating 2178007
Golden Oak	Aluprof 30 – varnish	Aluprof 30 – varnish	Aluprof 30 – varnish	Film coating 2178001

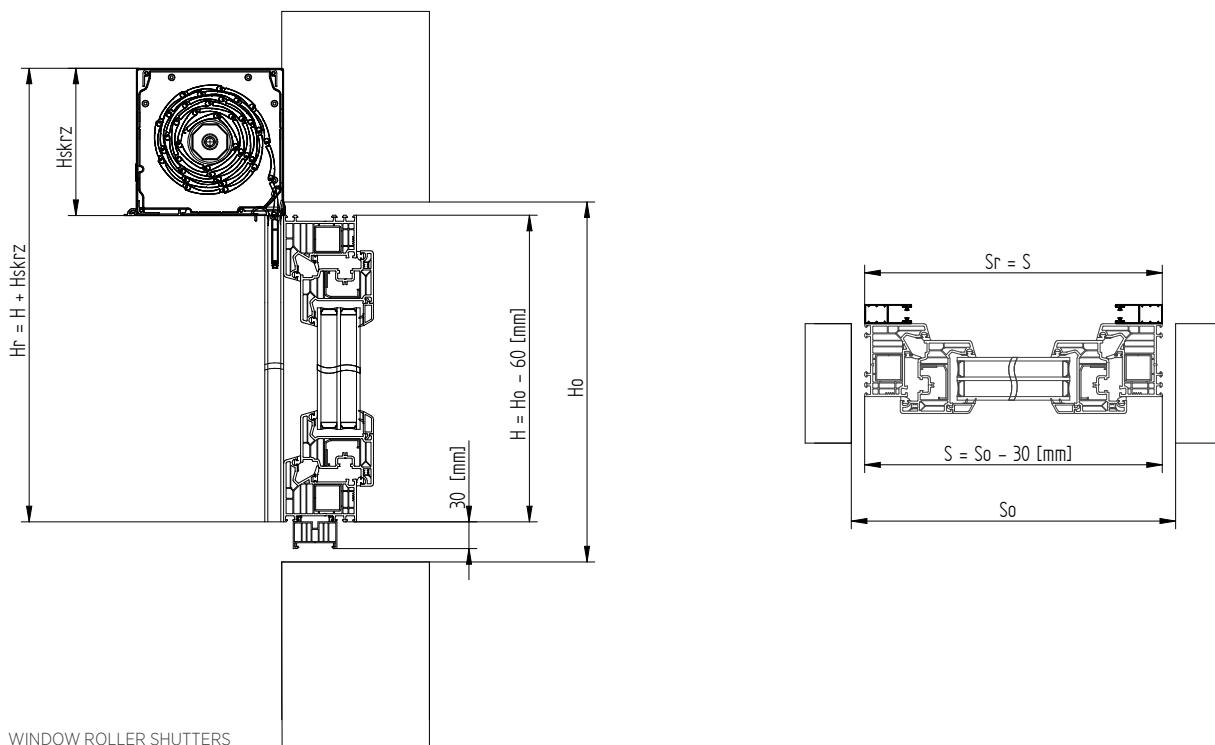
Protecta P system roller shutter installation methods

Installation in the lintel
Specially prepared lintel

Installation on the
widening



Dimensioning roller shutters, Protecta P lintel installation





Colours

CURTAIN		END SLAT		GUIDE RAILS		ACCESS COVER	
Standard colours		Standard colours		Standard colours		Standard colours	
Silver	01	White	02	White	02	White	02
White	02	Grey	03	Grey	03	Grey	03
Grey	03	Dark Brown	08	Dark Brown	08	Dark Brown	08
Dark Brown	08	Brown	09	Brown	09	Brown	09
Brown	09	Anthracite Grey	23	Anthracite Grey	23	Anthracite Grey	23
Anthracite Grey	23	Walnut	28	Walnut	28	Walnut	28R
Walnut	28	Golden Oak	30	Golden Oak	30	Golden Oak	30R
Special colours		Special colours		Special colours		Special colours	
Black	20	Silver	01	Silver	01	Silver	01
Light Grey	31	Black	20	Anthracite Grey	23R	Anthracite Grey	23R
Basalt Grey	33	Anthracite Grey	23R	Walnut	28R	Basalt Grey	33
Quartz Grey	34	Walnut	28R	Golden Oak	30R	White Pearl Mat	40
Concrete Grey	35	Golden Oak	30R	White Pearl Mat	40	Anthracite Grey Pearl Mat	43
Wenge	36	Quartz Grey	34	Anthracite Grey Pearl Mat	43	Winchester	52R
Grey Aluminium	37	White Pearl Mat	40	Winchester	52R	Dark Oak	53R
White Pearl Mat*	40	Anthracite Grey Pearl Mat	43	Dark Oak	53R	Bleached Oak***	79R
Anthracite Grey Pearl Mat*	43	Winchester	52R	Bleached Oak*	79R	Anthracite Quartz F4361014	-
Turner Oak*	49	Dark Oak	53R	Quartz Grey	34	Black Ulti-Matt 47097	-
Winchester	52	Bleached Oak*	79R	Anthracite Quartz F4361014	-	Woodec Turner Oak Malt	-
Bleached Oak*	79	Anthracite Quartz F4361014	-	Black Ulti-Matt 47097	-	Woodec Turner Oak Toffee	-
Woodec Turner Oak Malt**	-	Black Ulti-Matt 47097	-	Woodec Turner Oak Malt	-	Anthracite Grey 4365003	-
Woodec Turner Oak Toffee**	-	Woodec Turner Oak Malt	-	Woodec Turner Oak Toffee	-	Dark Grey Silk 4367003	-
Grey Metallic*	75	Woodec Turner Oak Toffee	-	Anthracite Grey 4365003	-	Walnut 2178007	-
Green	13	Anthracite Grey 4365003	-	Dark Grey Silk 4367003	-	Winchester 49240	-
Beige	05	Dark Grey Silk 4367003	-	Walnut 2178007	-	Golden Oak 2178001	-
		Walnut 2178007	-	Winchester 49240	-	Smooth Basalt Grey 701205083	-
		Winchester 49240	-	Golden Oak 2178001	-	Agate Grey 703805	-
		Golden Oak 2178001	-	Smooth Basalt Grey 701205083	-	Smooth Basalt Grey 715505083	-
		Smooth Basalt Grey 701205083	-	Agate Grey 703805	-	Silver Grey 715505083	-
		Agate Grey 703805	-	Smooth Basalt Grey 715505083	-	Earl Platinum 1293010	-
		Smooth Basalt Grey 715505083	-	Silver Grey 715505083	-	Anthracite Grau Matt F470-6003	-
		Silver Grey 715505083	-	Earl Platinum 1293010	-	Natural Oak 3118076	-
		Earl Platinum 1293010	-	Anthracite Grau Matt F470-6003	-	Jet Black 4467062	-
		Anthracite Grau Matt F470-6003	-	Natural Oak 3118076	-	Green 600505	-
		Natural Oak 3118076	-	Jet Black 4467062	-	RAL 9007	-
		Jet Black 4467062	-	Green 600505	-	Green 600505	-
		Green 600505	-	RAL 9007	-	RAL 9006	-
		RAL 9007	-				



END SLAT		GUIDE RAILS		ACCESS COVER	
Special colours		Special colours		Special colours	
RAL 9006	-	RAL 9006	-	RAL 9005	-
RAL 9005	-	RAL 9005	-	RAL 7039	-
RAL 7039	-	RAL 7039	-	RAL 7023	-
RAL 7023	-	RAL 7023	-	RAL 7012	-
RAL 7012	-	RAL 7012	-	RAL 8003	-
RAL 8003	-	RAL 8003	-	RAL 1013	-
RAL 1013	-	RAL 1013	-	RAL 7038	-
RAL 7038	-	RAL 7038	-	RAL 7016	-
RAL 7016	-	RAL 7016	-	RAL 7024	-
RAL 7024	-	RAL 7024	-	RAL 1001	-
RAL 1001	-	RAL 1001	-	RAL MODERN GRAPHITE	-
RAL MODERN GRAPHITE	-	RAL MODERN GRAPHITE	-	RAL 8014	-
RAL 8014	-	RAL 8014	-	RAL MODERN BLACK	-
RAL MODERN BLACK	-	RAL MODERN BLACK	-	RAL ANTHRACITE	-
RAL ANTHRACITE	-	RAL ANTHRACITE	-	RAL 7047	-
RAL 7047	-	RAL 7047	-	RAL 5011	-
RAL 5011	-	RAL 5011	-	RAL 7035	-
RAL 7035	-	RAL 7035	-	Turner Oak	49R
Turner Oak	49	Turner Oak	49	Beige	05
Turner Oak	49R	Turner Oak	49R	RAL 7037	-
Beige	05	Beige	05	RAL 6005	-
RAL 7037	-	RAL 7037	-	RAL 7002	-
RAL 6005	-	RAL 6005	-	RAL 1034	-
RAL 7002	-	RAL 7002	-	RAL 8011	-
RAL 1034	-	RAL 1034	-	RAL DB703	-
RAL 8011	-	RAL 8011	-	Chocolate Brown 887505	-
RAL DB703	-	RAL DB703	-	White 915205	-
Chocolate Brown 887505	-	Chocolate Brown 887505	-	Siena Rosso 49233	-
White 915205	-	White 915205	-	Sapeli (Mahogany) 2065021	-
Siena Rosso 49233	-	Siena Rosso 49233	-	Brown Black 851805	-
Sapeli (Mahogany) 2065021	-	Sapeli (Mahogany) 2065021	-	Basalt Grey 701205	-
Brown Black 851805	-	Brown Black 851805	-	Black FN 301900002	-
Basalt Grey 701205	-	Basalt Grey 701205	-	Light Grey 725105	-
Black FN 301900002	-	Black FN 301900002	-	Ivory 101505	-
Light Grey 725105	-	Light Grey 725105	-	Quartz Grey 703905	-
Ivory 101505	-	Ivory 101505	-	Steel Blue 515005	-
Quartz Grey 703905	-	Quartz Grey 703905	-	RAL 7042	-
Steel Blue 515005	-	Steel Blue 515005	-	RAL 6009	-
RAL 7042	-	RAL 7042	-		
RAL 6009	-	RAL 6009	-		



PLEASE NOTE

Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.

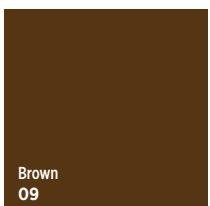
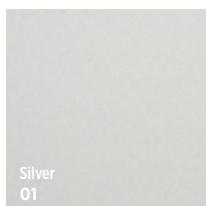
Guide rail colours include the standard guide rails PP53/S and PPD79/S.

Curtain colours marked with the double asterisk symbol ** are only available with the BP41R-0 curtain.

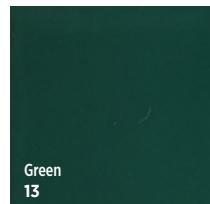
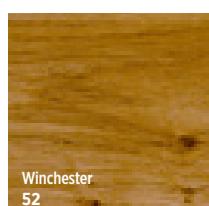
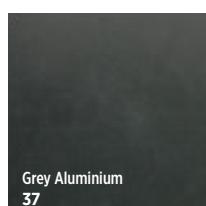
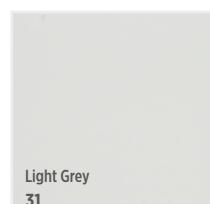
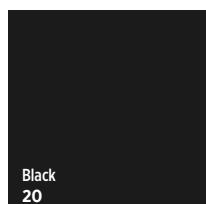
*** except box size 205 mm

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



Curtain – special colours





PROTECTA N ROLLER SHUTTERS

Technical information

The Protecta N roller shutters are a system of roller shutters where the box and the guide rails are made of PVC. The curtain is made up of profiles from aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

Top-mounted roller shutters can be installed both in newly built buildings, as well as in renovated buildings when the window joinery is replaced. The roller shutter box is seated on the window using a special adaptation profile, the guide rails are screwed directly to the window frame, and then this combination is installed and anchored as a single structure in the window opening. The height of the window in relation to the window opening should be decreased by the height of the top-mounted roller shutter box. The inside of the box is additionally insulated with expanded polystyrene for improved thermal insulation. The boxes can be installed from the outside and from the inside of the room, which makes them an integral part of the inside or the façade of the building.

The access cover is located inside the room, and the broad range of colours makes it possible to match it with the window colour.

Thanks to the option to integrate the Protecta N roller shutters with a mosquito screen, the home interior is not only protected against high solar exposure in the summer and loss of heat in the winter, but the roller shutters also ensure effective protection against insects.



Structure of the Protecta N roller shutter

Standard accessories

- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat conical stoppers 30mm, with MKT 18 mm
- PVC guide rails with a brush seal
- Guide rails can be cut at a 5° angle
- installation anchors
- side cover and window frame connector
- extruded polystyrene thermal insulation
- the top end position is set in the power operated version
- rubber cable gland
- tape winder in colour: white / brown

Box sizes – Protecta N roller shutter

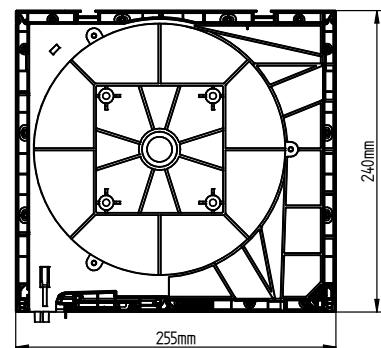
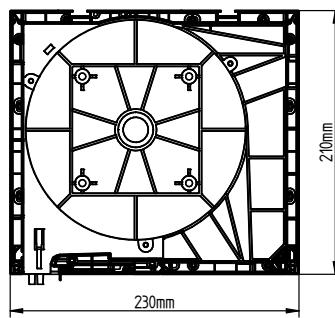
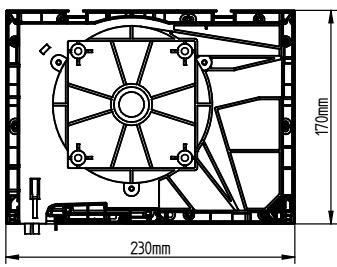
230/170

⋮

230/210

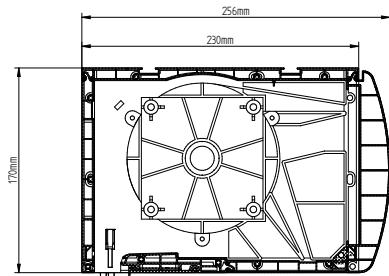
⋮

255/240

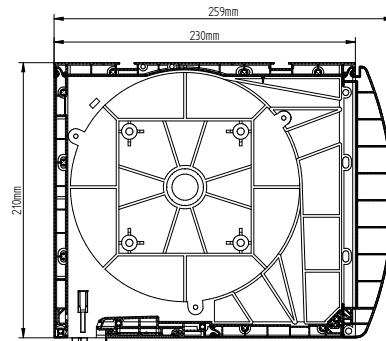




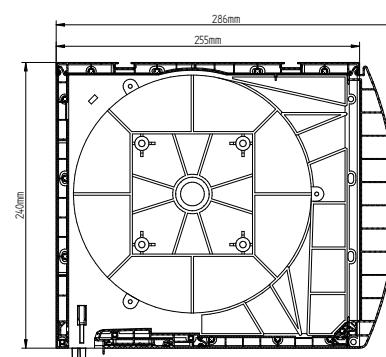
230/170 rounded



230/210 rounded



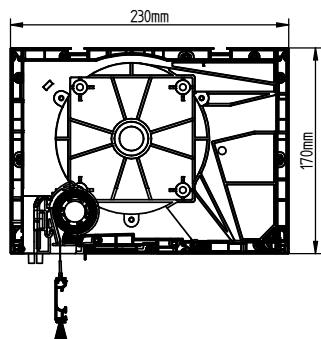
255/240 rounded

**Maximum height including the box for the Protecta N roller shutter [mm]**

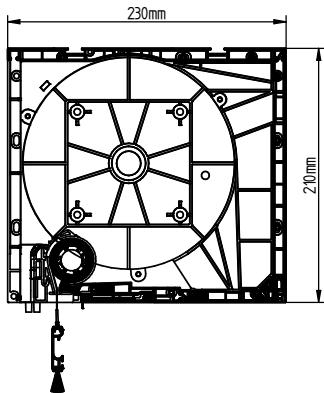
Box size	Curtain PA39				Curtain PA43		
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB
230/170 (OC)	1,890	1,690	1,730	1,570	1,720	1,590	1,460
230/210 (OC)	3,230	3,310	3,270	3,040	3,120	3,080	3,250
255/240 (OC)	4,460	4,770	4,460	4,420	4,680	4,210	4,420

SW - octagonal steel tube with an internal/external weld**WB** - self-locking hanger**OC** - box thermal insulation (expanded polystyrene)**Box dimensions – Protecta N roller shutter with a mosquito screen**

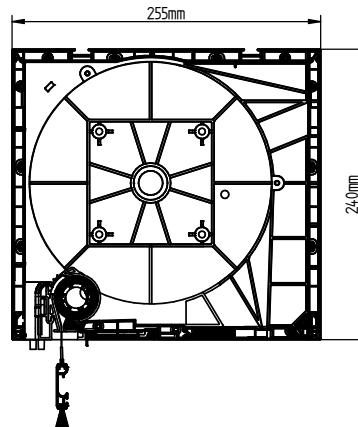
MKT 230/170



MKT 230/210



MKT 255/240





Maximum height including the box for the Protecta N roller shutter with a mosquito screen [mm]							
Box size	Curtain PA39				Curtain PA43		
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB
230/170 (OCM)	1,600	1,460	1,220	1,260	1,460	1,250	1,290
230/210 (OCM)	1,700	1,700	1,700	1,700	1,700	1,700	1,700
255/240 (OCM)	2,500	2,500	2,500	2,500	2,500	2,500	2,500

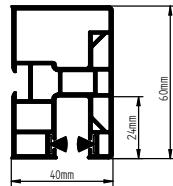
SW - octagonal steel tube with an internal/external weld

WB - self-locking hanger

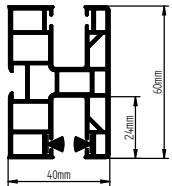
OCM - thermal insulation of a box with a mosquito screen (expanded polystyrene)

Guide rail types

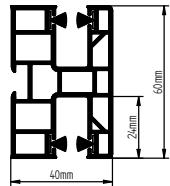
PP 60/12



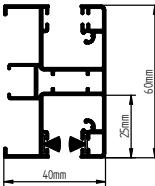
PPD 60/12



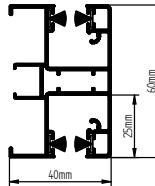
PPD-P 60/12



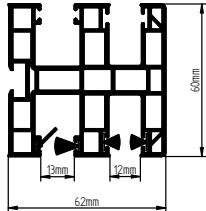
PPDA 60/12



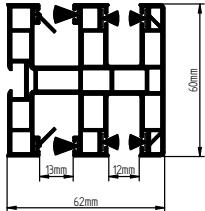
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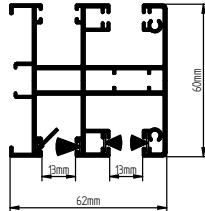
PPDMW 60/12



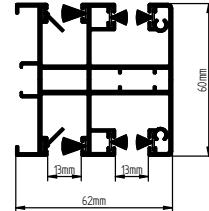
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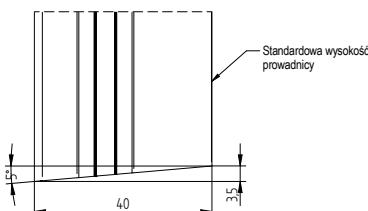
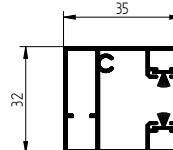
PPDAMW 60/12



PPDAMW-P 60/12



PPAMB 35/12



When the option to cut the guide rails at a 5° angle is selected, the rear wall of the guide rail will be cut to standard length, while the length of the front wall will be extended by 3.5 [mm].



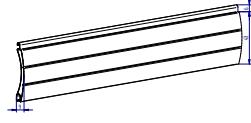
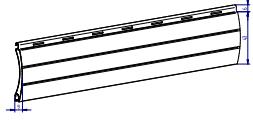
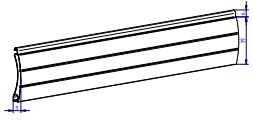
Curtain

PA 39

PA 39

PA 43

PA 43



Technical data

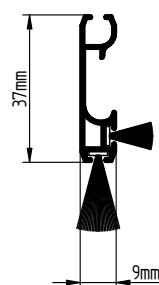
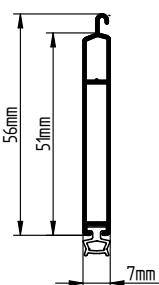
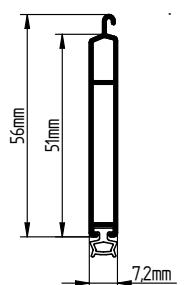
	PA 39	PA 43
Slat height	39 mm	43 mm
Weight 1 m²	2.8 kg	2.6 kg
Slats per metre of height	25.6 pieces	23.2 pieces
Max. roller shutter surface	6 m ²	9 m ²

End slats

LDG

LDG-E

LDSM MKT



The type of end slats depends on the colour

Colour Slat \	00	01	02	03	05	08	09	20	23	23R	28	28R	30	30R	34	40	43	52R	53R	79R
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	-	
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	x	
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	

Default roller shutter configuration in Golden Oak and Walnut

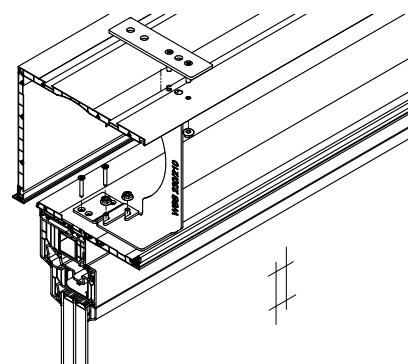
PROTECTA N

Roller shutter type	Curtain	Guide rails	End slat	Access cover
Walnut	Aluprof 28 - varnish	Film coating 2178007	Film coating 2178007	Film coating 2178007
Golden Oak	Aluprof 30 - varnish	Film coating 2178001	Film coating 2178001	Film coating 2178001

WSS reinforcement

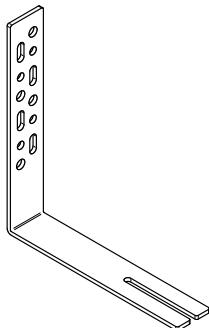
Quantity of WSS reinforcement pieces depending on the roller shutter width

Quantity of WSS reinforcement pieces	pc.	1	2	3	4	5	6	7	
Window width	PVC	mm	1,401-2,100	2,101-2,800	2,801-3,500	3,501-4,200	4,201-4,900	4,901-5,600	5,601-6,000
	Aluminium/wood	mm	1,601-2,400	2,401-3,200	3,201-4,000	4,001-4,800	4,801-5,600	5,601-6,000	-
	Sliding	mm	1,001-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-3,500	3,501-4,000	4,001-4,500

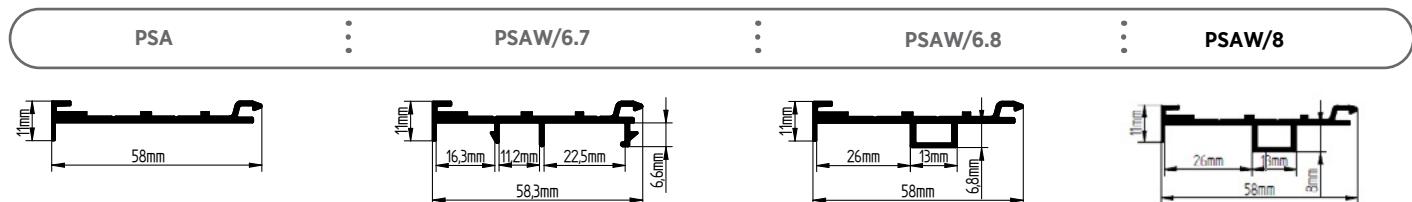




Mounting plate

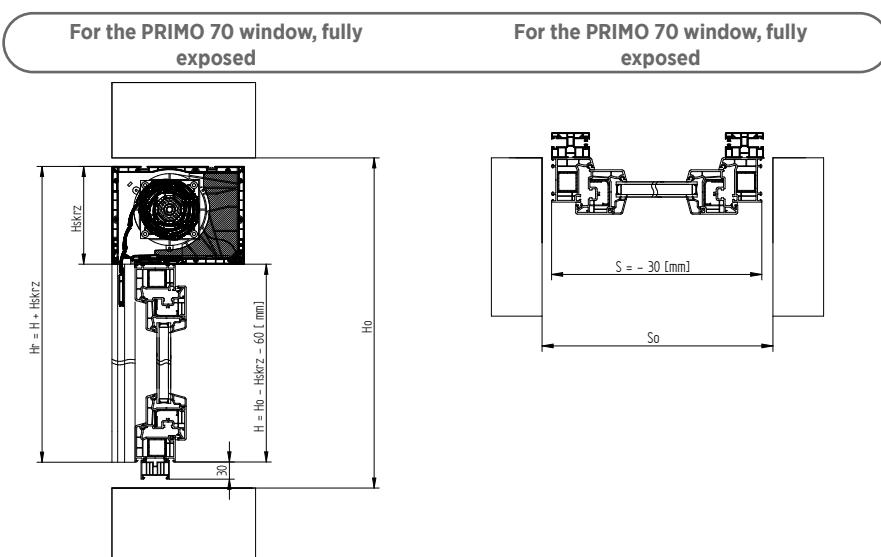


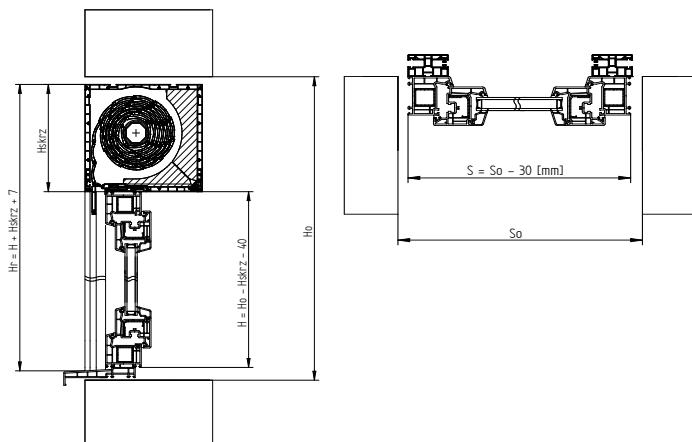
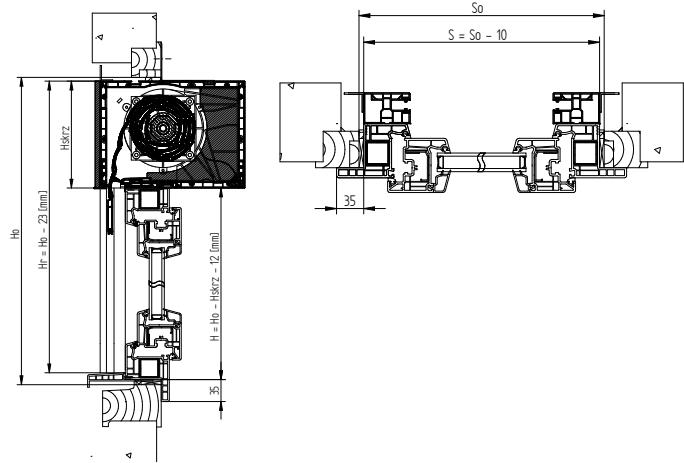
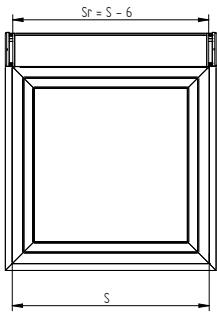
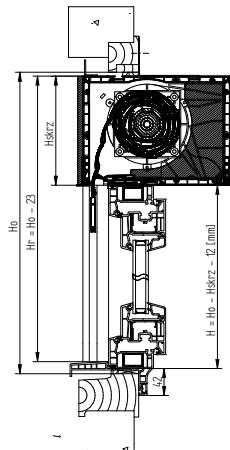
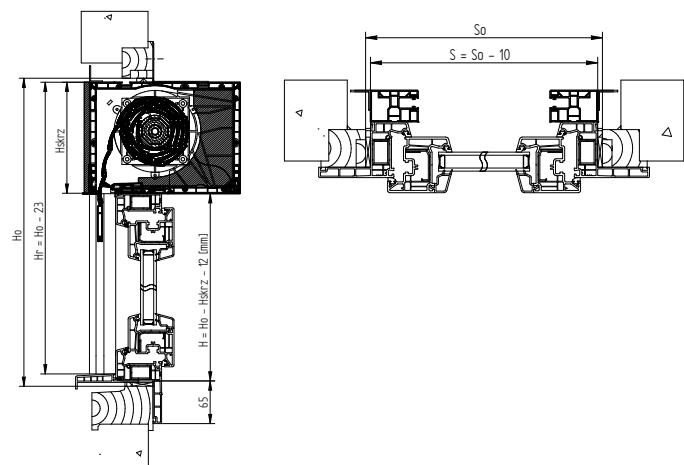
Adaptation profiles



System	Adapter
PRIMO 82 Windows	PSAW/6.7
Primo 82 HST Skymotion	PSAW/6.7
PRIMO 76 Windows	PSAW/6.7
Primo 76 Renovation frame 101.359	PSA
Primo 70 Standard frame	PSAW/6.7
Primo 70 Renovation frames	PSA
Primo 70 Monoblock frames	PSA
Develo	PSAW/6.8
Develo Renovation	PSAW/6.8
Develo HST	PSAW/8
ALU: Ecofutura, MDS, HST MB 79HS, Ultraglide	PSA

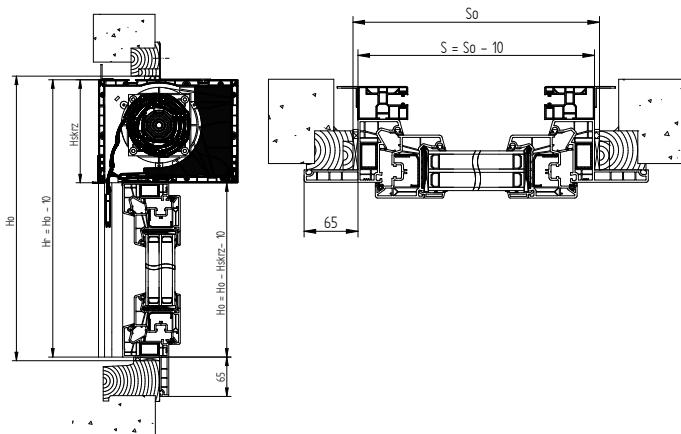
Dimensioning the Protecta N roller shutters with fully exposed installation or installation on the frames



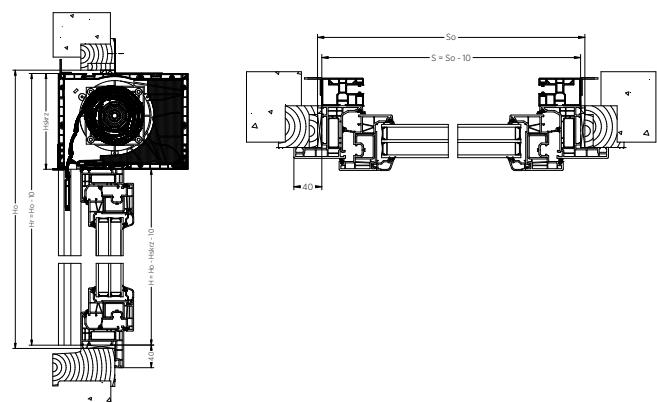
**France** Installation 110.105 with a roller shutter**France** Installation 101.218 with a roller shutter**France** View of the window + roller shutter from the outside - dimensioning for tapee**France** Installation 101.043 with a roller shutter**France** Installation 101.053 with a roller shutter



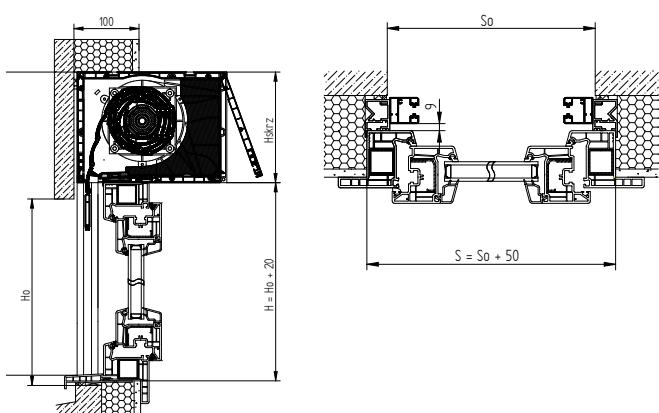
France Installation 101.359 with a roller shutter



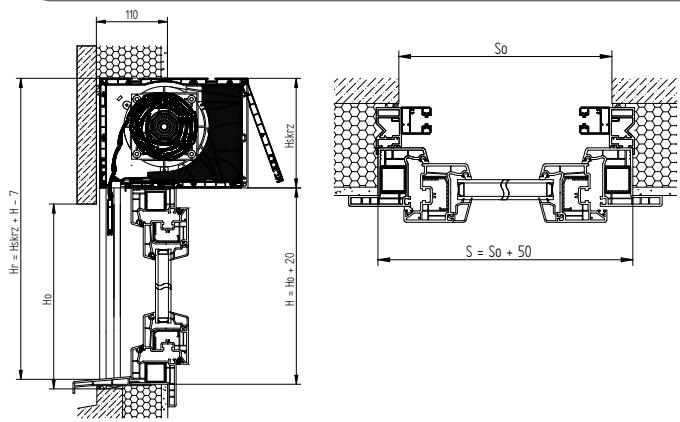
France Installation of Develo 5105 with a roller shutter



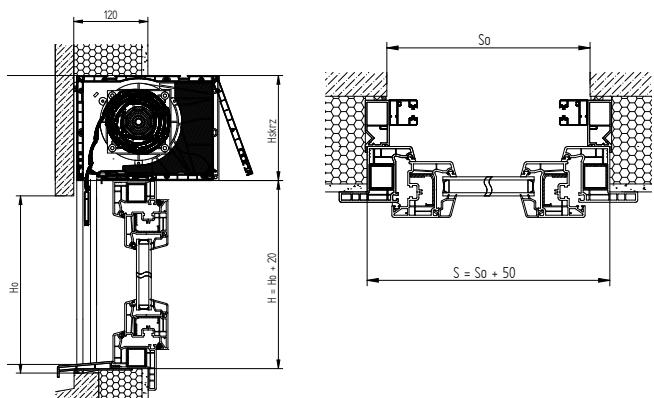
France ISO 100



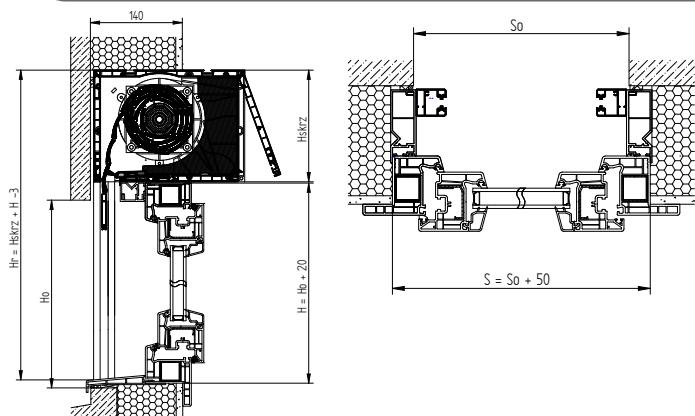
France ISO 110



France ISO 120



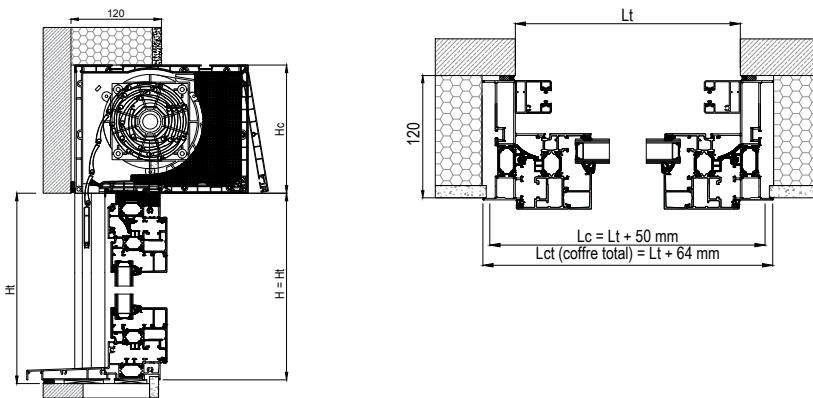
France ISO 140



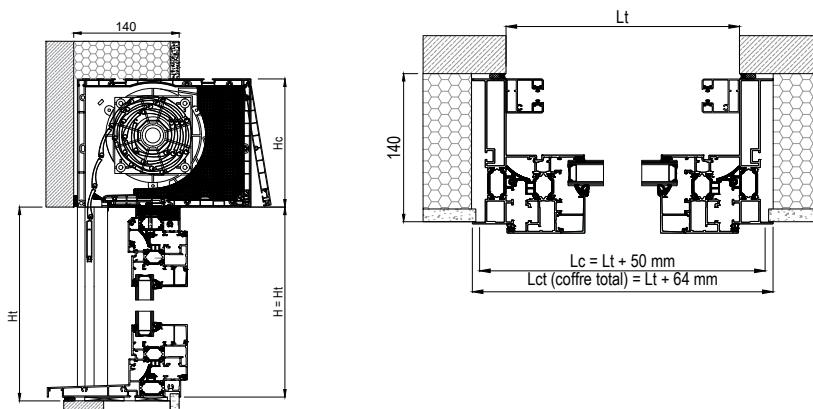


Roller shutter dimensioning, Protecta N for aluminium window systems

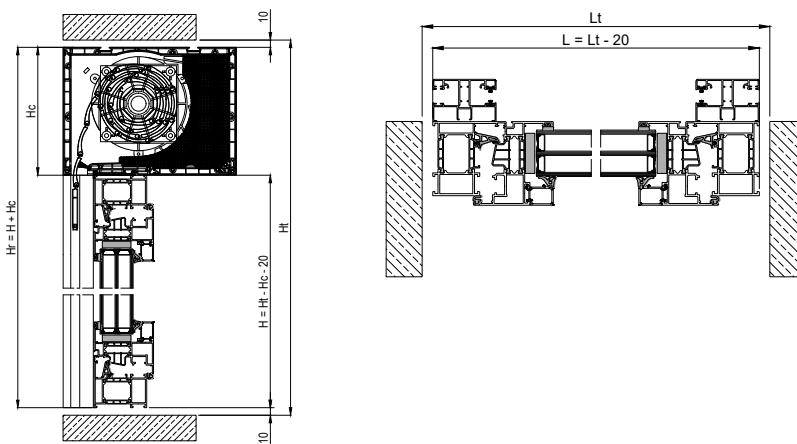
Installation of the Protecta N Ecofutural Monoblock ISO 120 roller shutter



Installation of the Protecta N Ecofutural Monoblock ISO 140 roller shutter



Installation of the Protecta N MB79N roller shutter



Designations

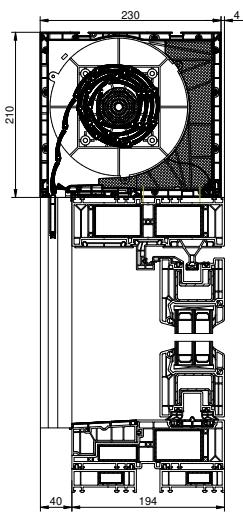
H - structure height
L - structure width
Ht - opening height
Lt - opening width
Hc - box height
Lc - box width

Lct - total width of the box with side covers
Hr - total height of the roller shutter with the box

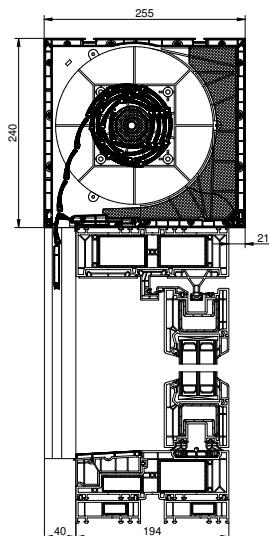
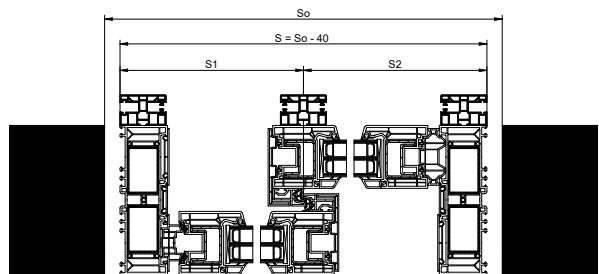
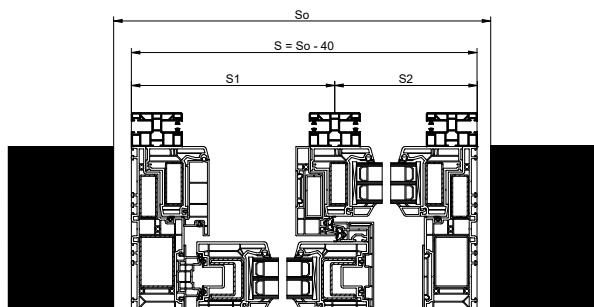


Installation of the Protecta N roller shutter on HST PVC

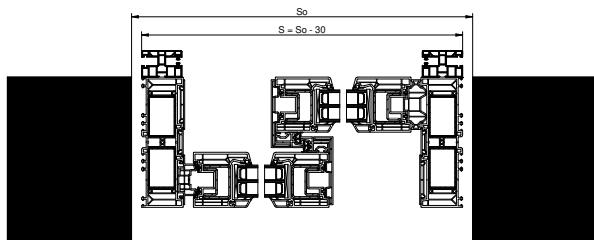
Protecta N 230x210



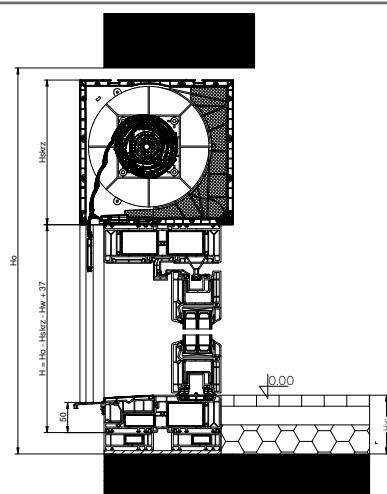
Protecta N 255x240

HST VEKAMOTION + roller shutter,
division – horizontal cross-sectionHST VEKAMOTION Max + roller shutter,
division – horizontal cross-section

HST VEKAMOTION + roller shutter – horizontal dimensioning

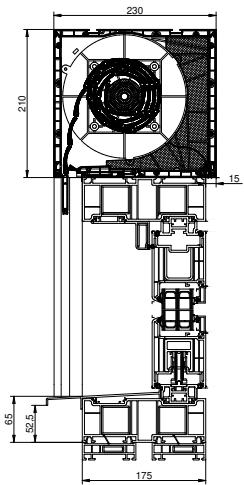


HST VEKAMOTION + roller shutter – dimensioning

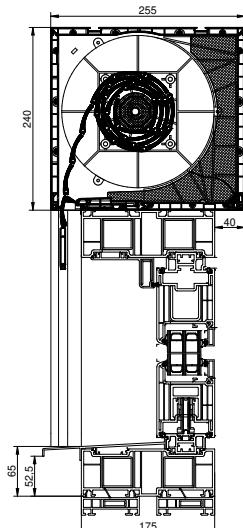




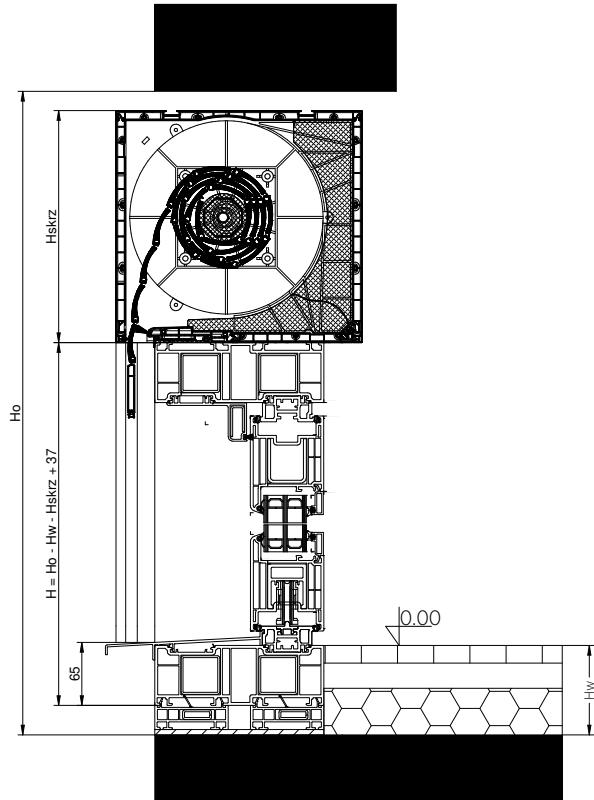
HST Develo + box 210 – vertical cross-section



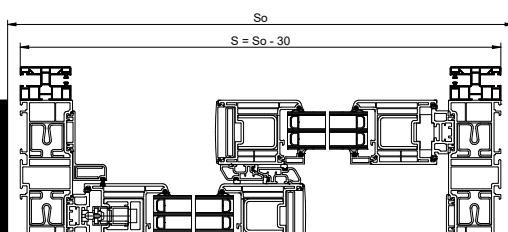
HST Develo + box 240 – vertical cross-section



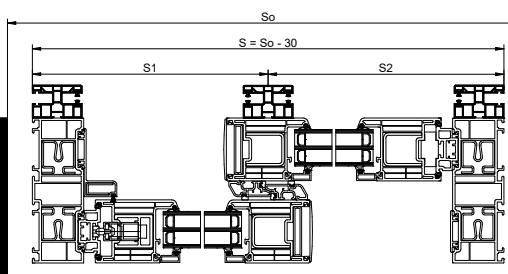
HST Develo + ROLLER SHUTTER – dimensioning



HST Develo + ROLLER SHUTTER – horizontal dimensioning



HST Develo + ROLLER SHUTTER division – horizontal dimensioning

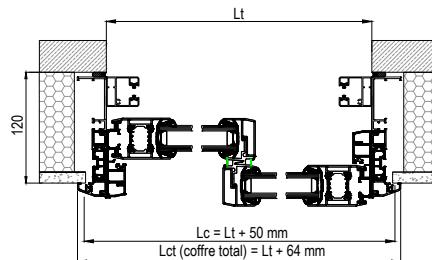
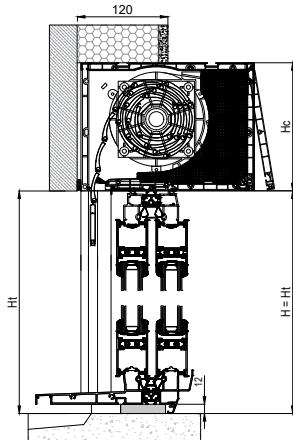




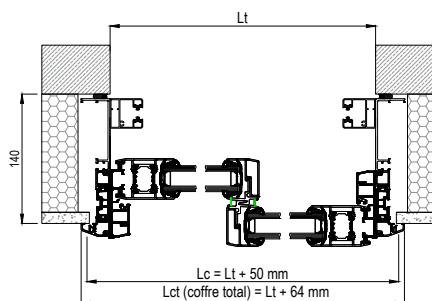
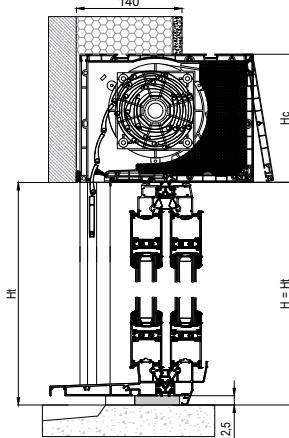
Installation of the Protecta N roller shutter on aluminium sliding systems



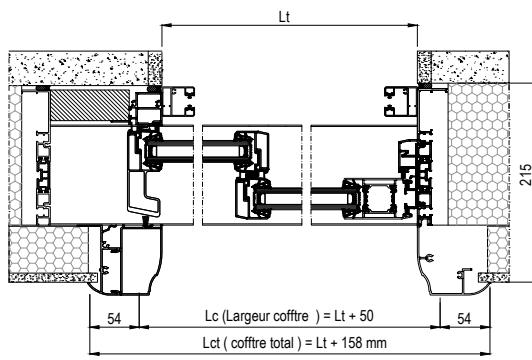
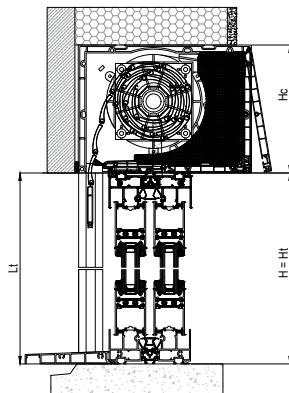
Installation of the Protecta N MDS Monoblock ISO 120 roller shutter



Installation of the Protecta N MDS Monoblock ISO 140 roller shutter



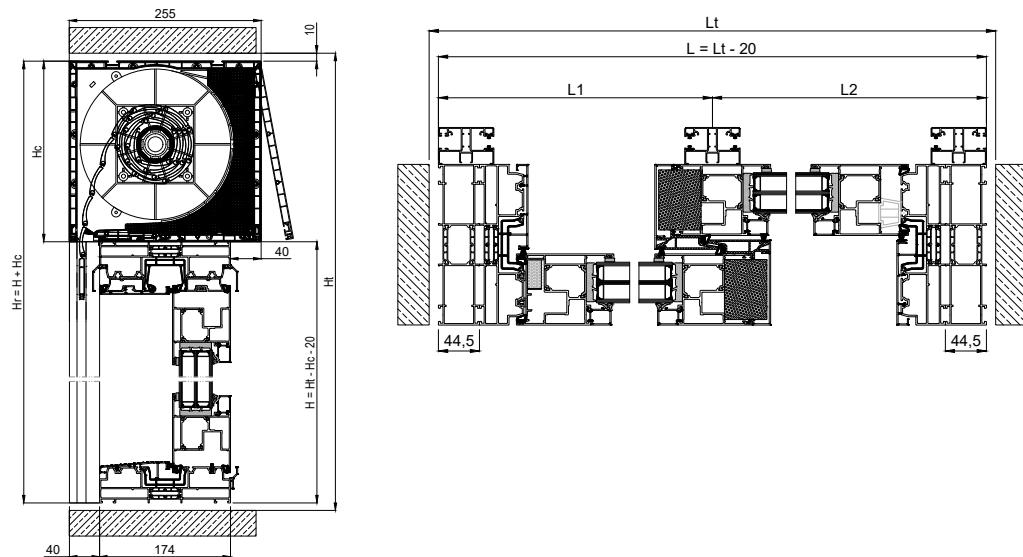
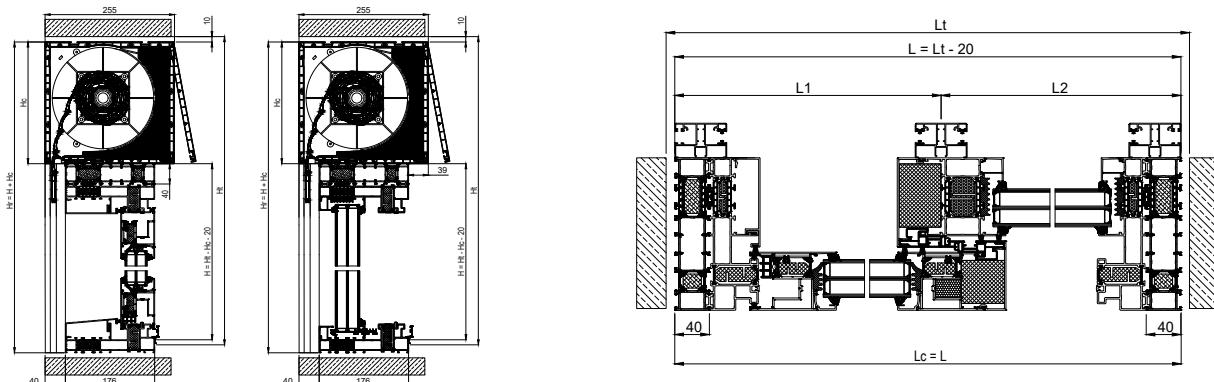
Installation of the Protecta N MDS Galandage roller shutter



Designations

H – structure height
L – structure width
Ht – opening height
Lt – opening width
Hc – box height
Lc – box width

Lct – total width of the box with side covers
Hr – total height of the roller shutter with the box

**Installation of the Protecta N HST MB-77HS roller shutter****Installation of the Protecta N HST Ultraglide roller shutter****Designations**

H – structure height
L – structure width
Ht – opening height
Lt – opening width
Hc – box height
Lc – box width

Lct – total width of the box with side covers
Hr – total height of the roller shutter with the box



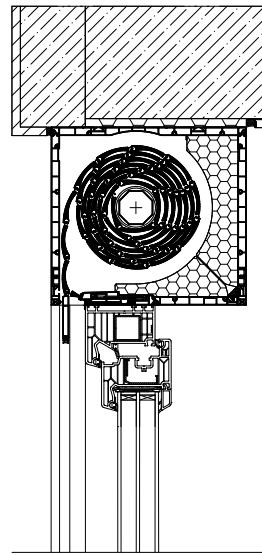
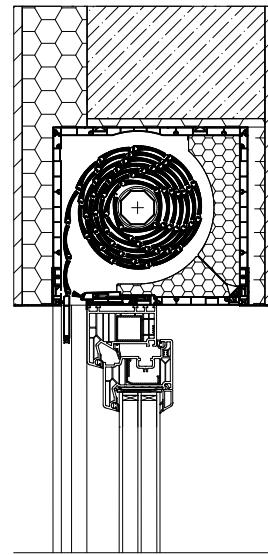
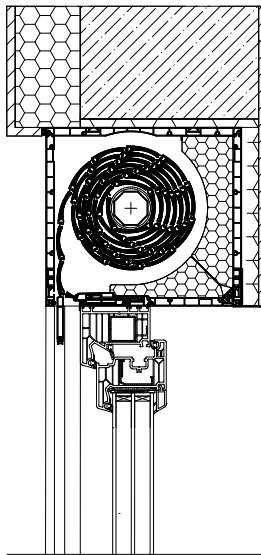
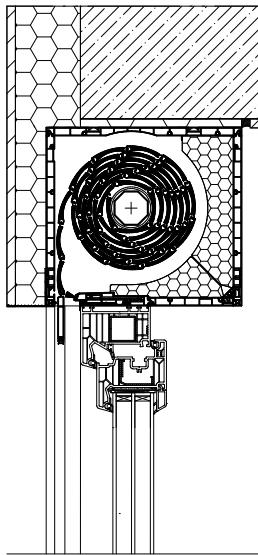
Protecta N system roller shutter installation methods

Roller shutter box covered from the outside, access cover from the bottom or front

• Roller shutter box covered from the inside, access cover from the bottom

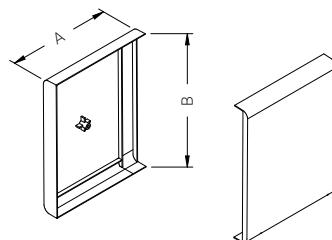
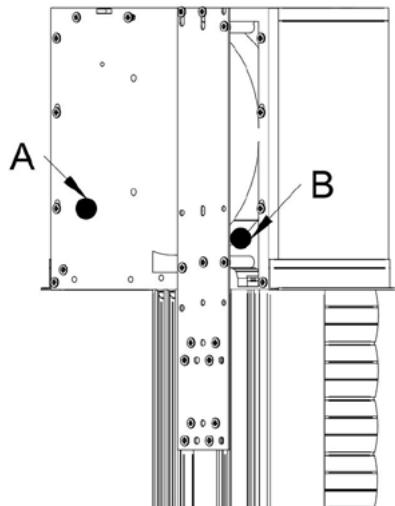
• Roller shutter box covered from the outside and inside, access cover from the bottom

• Roller shutter box, fully exposed, access cover from the bottom or front



One of the cable output options, A or B, can be selected

Protecta N top-mounted roller shutter side cover option available

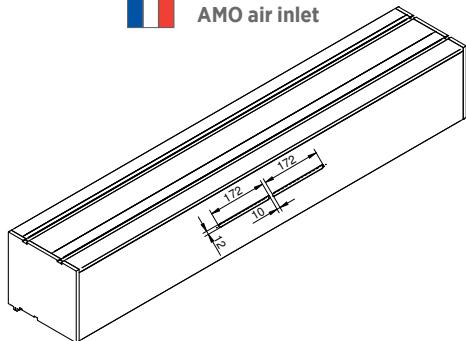


Box size	A [mm]	B [mm]
230/170	136	175
230/210	136	215
255/240	161	245

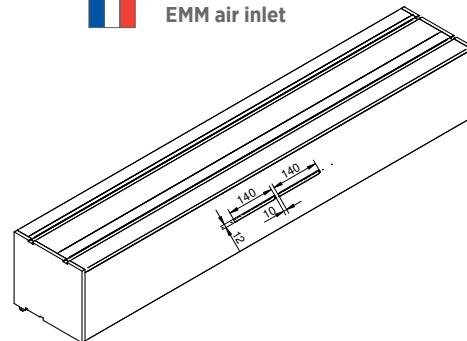


Milling for air inlets in the roller shutter box

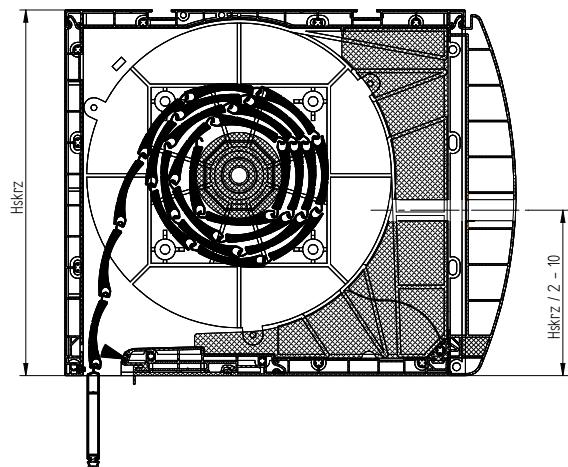
FR AMO air inlet



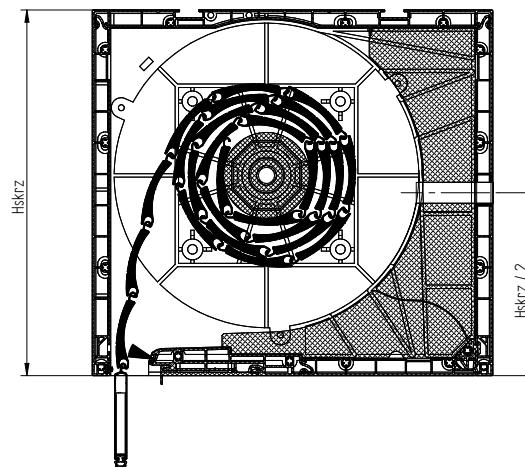
FR EMM air inlet



FR Rounded box with an air inlet



FR Straight box with an air inlet





Colours

CURTAIN		END SLAT		GUIDE RAILS		BOX ELEMENTS	
Standard colours		Standard colours		Standard colours		Standard colours	
Silver	01	Silver	01	White	02	White	02
White	02	White	02	Dark Brown	08	Dark Brown	08
Grey	03	Grey	03	Anthracite Grey	23R	Anthracite Grey	23R
Dark Brown	08	Dark Brown	08	Walnut	28R	Walnut	28R
Brown	09	Brown	09	Golden Oak	30R	Golden Oak	30R
Anthracite Grey	23	Anthracite Grey	23	Winchester	52R	Winchester	52R
Walnut	28	Walnut	28	Dark Oak	53R	Dark Oak	53R
Golden Oak	30	Golden Oak	30	Special colours		Special colours	
Beige	05	Beige	05	Dark Grey Silk	25R	Anthracite Quartz F4361014	-
Special colours		Turner Oak	49	Basalt Grey	33R	Black Ulti-Matt 47097	-
Black	20	Turner Oak film coating	49R	Chocolate Brown	55R	Woodec Turner Oak Malt	-
Light Grey	31	Special colours		Silver Grey	57R	Woodec Turner Oak Toffee	-
Basalt Grey	33	Black	20	Anthracite Quartz F4361014	-	Anthracite Grey 4365003	-
Quartz Grey	34	Anthracite Grey	23R	Black Ulti-Matt 47097	-	Dark Grey Silk 4367003	-
Concrete Grey	35	Walnut	28R	Woodec Turner Oak Malt	-	Walnut 2178007	-
Wenge	36	Golden Oak	30R	Woodec Turner Oak Toffee	-	Winchester 49240	-
Grey Aluminium	37	Quartz Grey	34	Anthracite Grey 4365003	-	Golden Oak 2178001	-
White Pearl Mat*	40	White Pearl Mat	40	Dark Grey Silk 4367003	-	Smooth Basalt Grey 701205083	-
Anthracite Grey Pearl Mat*	43	Anthracite Grey Pearl Mat	43	Walnut 2178007	-	Agate Grey 703805	-
Turner Oak*	49	Winchester	52R	Winchester 49240	-	Smooth Basalt Grey 715505083	-
Winchester	52	Dark Oak	53R	Golden Oak 2178001	-	Silver Grey 715505	-
Bleached Oak*	79	Bleached Oak*	79R	Smooth Basalt Grey 701205083	-	Earl Platinum 1293010	-
Grey Metallic*	75	Anthracite Quartz F4361014	-	Agate Grey 703805	-	Anthracite Grau Matt F470-6003	-
Green	13	Black Ulti-Matt 47097	-	Smooth Basalt Grey 715505083	-	Natural Oak 3118076	-
		Woodec Turner Oak Malt	-	Silver Grey 715505	-	Jet Black 4467062	-
		Woodec Turner Oak Toffee	-	Earl Platinum 1293010	-	Green 600505	-
		Anthracite Grey 4365003	-	Anthracite Grau Matt F470-6003	-	Chocolate Brown 887505	-
		Dark Grey Silk 4367003	-	Natural Oak 3118076	-	White 915205	-
		Walnut 2178007	-	Jet Black 4467062	-	Siena Rosso 49233	-
		Winchester 49240	-	Green 600505	-	Sapeli (Mahogany) 2065021	-
		Golden Oak 2178001	-	Chocolate Brown 887505	-	Brown Black 851805	-
		Smooth Basalt Grey 701205083	-	White 915205	-	Basalt Grey 701205	-
		Agate Grey 703805	-	Siena Rosso 49233	-	Black FN 301900002	-
		Smooth Basalt Grey 715505083	-	Sapeli (Mahogany) 2065021	-	Light Grey 725105	-
		Silver Grey 715505	-	Brown Black 851805	-	Ivory 101505	-
		Earl Platinum 1293010	-	Basalt Grey 701205	-	Quartz Grey 703905	-
		Anthracite Grau Matt F470-6003	-	Black FN 301900002	-	Steel Blue 515005	-
		Natural Oak 3118076	-	Light Grey 725105	-		
		Jet Black 4467062	-				



END SLAT		GUIDE RAILS	
Special colours		Special colours	
Green 600505		Ivory 101505	-
RAL 9007		Quartz Grey 703905	-
RAL 9006		Steel Blue 515005	-
RAL 9005			
RAL 7039			
RAL 7023			
RAL 7012			
RAL 8003			
RAL 1013			
RAL 7038			
RAL 7016			
RAL 7024			
RAL 1001			
RAL MODERN GRAPHITE			
RAL 8014			
RAL MODERN BLACK			
RAL ANTHRACITE			
RAL 7047			
RAL 5011			
RAL 7035			
RAL 7037			
RAL 6005			
RAL 7002			
RAL 1034			
RAL 8011			
DB 703			
Chocolate Brown 887505			
White 915205			
Siena Rosso 49233			
Sapeli (Mahogany) 2065021			
Brown Black 851805			
Basalt Grey 701205			
Black FN 301900002			
Light Grey 725105			
Ivory 101505			
Quartz Grey 703905	-		
Steel Blue 515005	-		
RAL 7042	-		
RAL 6009	-		



PLEASE NOTE

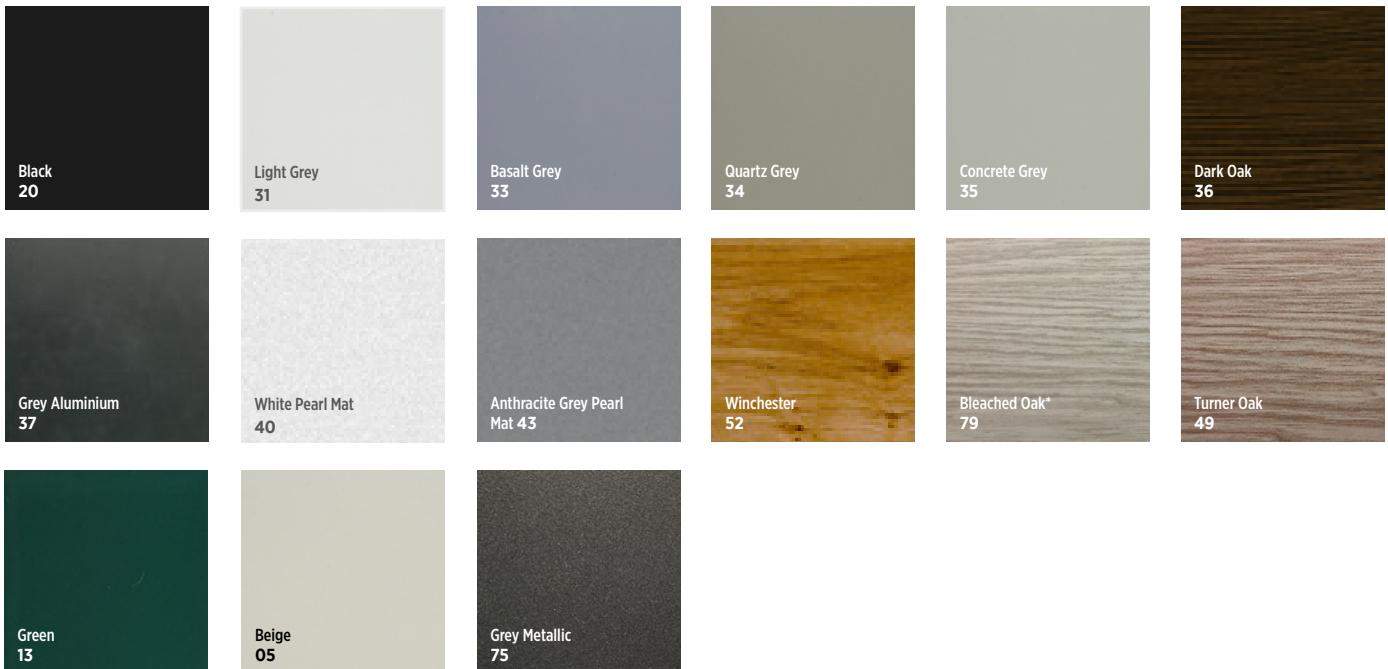
Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.
Guide rail colours include the standard guide rails PPD60/12.

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



Curtain – special colours



PROTECTA S ROLLER SHUTTERS

Technical information

The Protecta S roller shutters are a system where the box is made of a special material providing very good thermal characteristics, and it is available in two sizes: 260 x 260mm and 300 x 300mm. The guide rails are made of PVC, while the curtain is made up of profiles from aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

The Protecta S roller shutters can be installed both in newly built buildings, as well as in renovated buildings when the window joinery is replaced. The roller shutter box is seated on the window using a special adaptation profile, the guide rails are screwed directly to the window frame, and then this combination is installed and anchored as a single structure in the window opening. The height of the window in relation to the window opening should be decreased by the height of the top-mounted roller shutter box. The box structure provides excellent thermal insulation.

Another advantage of this product is the option to choose whether the access cover is mounted from the inside or outside of the room, which is crucial for servicing.



Structure of the Protecta S roller shutter

Standard accessories

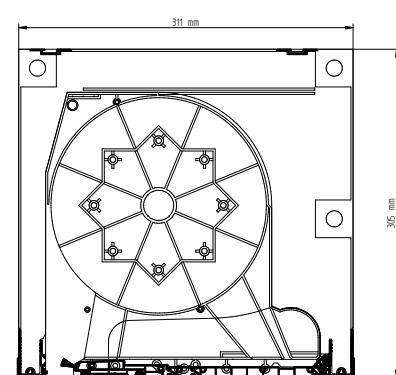
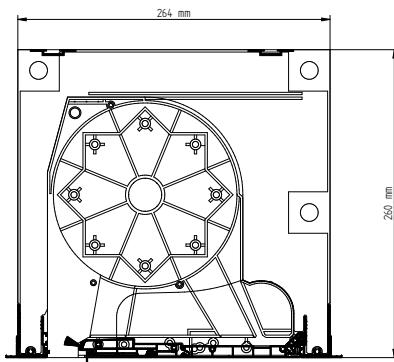
- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat conical stoppers 30 mm
- PVC guide rails with a brush seal
- guide rails can be cut at a 5° angle
- installation anchors
- the top end position is set in the power operated version
- rubber cable gland
- tape winder in colour: white / brown

Box sizes – Protecta S roller shutter

260/260

⋮

300/300



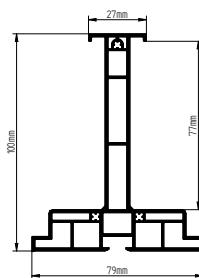
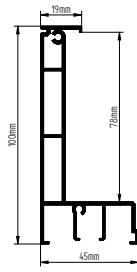
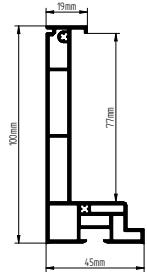
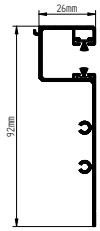
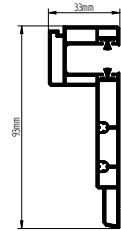


Maximum height including the box for the Protecta S roller shutter [mm]							
Box size	Curtain PA39				Curtain PA43		
	SW40 + WB	SW40	SW60 + WB	SW60	SW40	SW60	SW60 + WB
260	2,930	2,930	2,700	2,510	2,620	2,400	2,530
300	4,590	4,590	4,400	4,200	4,700	4,230	4,400

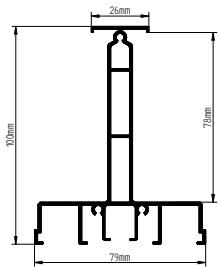
Guide rail types

Access cover outside

PPRA/12 :: PPARA/12 :: APPRA45 :: APPARA45 :: APPDRA79

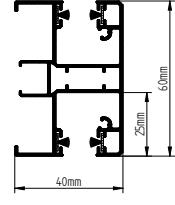
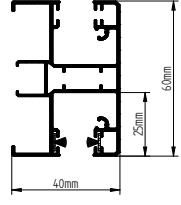
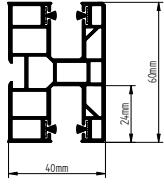
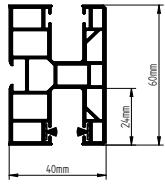
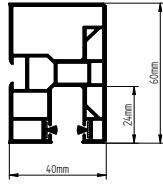


APPDARA79



Access cover inside

PP60/12 :: PPD60/12 :: PPD-P60/12 :: PPDA60/12 :: PPDA-P60/12





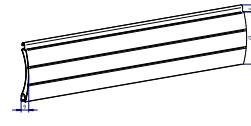
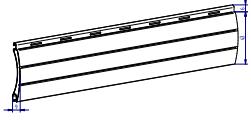
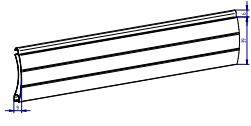
Curtains

PA 39

PA 39

PA 43

PA 43



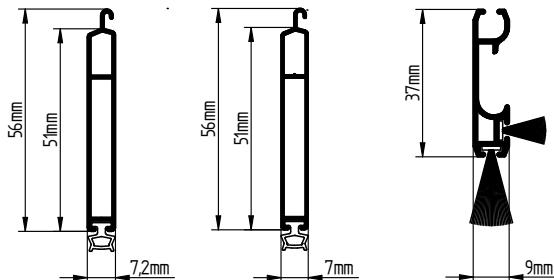
	Technical data	
	PA 39	PA 43
Slat height	39 mm	43 mm
Weight 1 m²	2.8 kg	2.6 kg
Slats per metre of height	25.6 pieces	23.2 pieces
Max. roller shutter surface	6 m ²	9 m ²

End slats

LDG

LDG-E

LDSM MKT



The type of end slats depends on the colour

Colour \ Slat	00	01	02	03	05	08	09	20	23	23R	28	28R	30	30R	34	40	43	52R	53R	79R
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	-	
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	x	
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	-

Default roller shutter configuration in Golden Oak and Walnut

Protecta S RI and RA

Roller shutter type	Curtain	Guide rails	End slat	Access cover
Walnut	Aluprof 28 - varnish	Film coating 2178007	Film coating 2178007	Film coating 2178007
Golden Oak	Aluprof 30 - varnish	Film coating 2178001	Film coating 2178001	Film coating 2178001

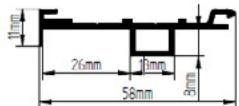
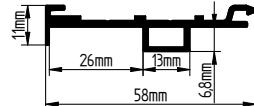
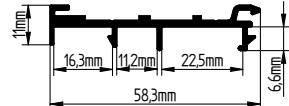
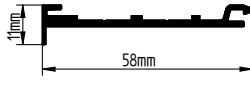


WSS reinforcement

Quantity of WSS reinforcement pieces depending on the roller shutter width									
Quantity of WSS reinforcement pieces	pc.	1	2	3	4	5	6	7	
Window width	PVC	mm	1,401-2,100	2,101-2,800	2,801-3,500	3,501-4,200	4,201-4,900	4,901-5,600	5,601-6,000
	Aluminium/wood	mm	1,601-2,400	2,401-3,200	3,201-4,000	4,001-4,800	4,801-5,600	5,601-6,000	-
	Sliding	mm	1,001-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-3,500	3,501-4,000	4,001-4,500

Adaptation profiles

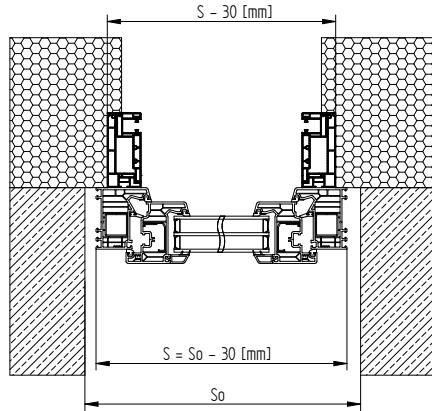
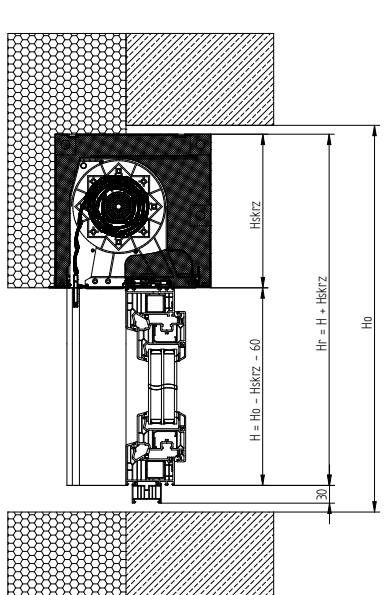
PSA • PSAW/6.7 • PSAW/6.8 • PSAW/8



System	Adapter
PRIMO 82 Windows	PSAW/6.7
Primo 82 HST Skymotion	PSAW/6.7
PRIMO 76 Windows	PSAW/6.7
Primo 76 Renovation frame 101.359	PSA
Primo 70 Standard frame	PSAW/6.7
Primo 70 Renovation frames	PSA
Primo 70 Monoblock frames	PSA
Develo	PSAW/6.8
Develo Renovation	PSAW/6.8
Develo HST	PSAW/8

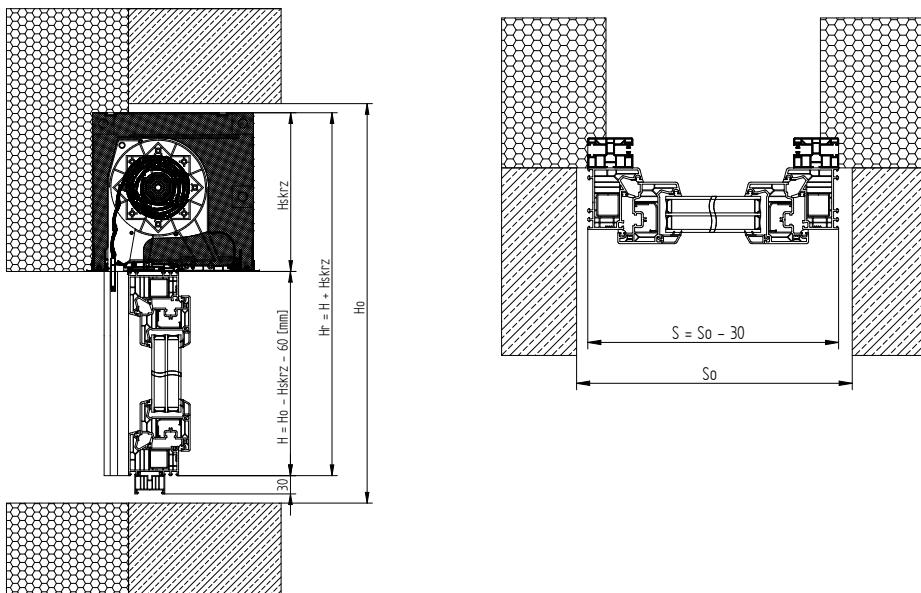
Dimensioning the Protecta S roller shutters

Access cover outside





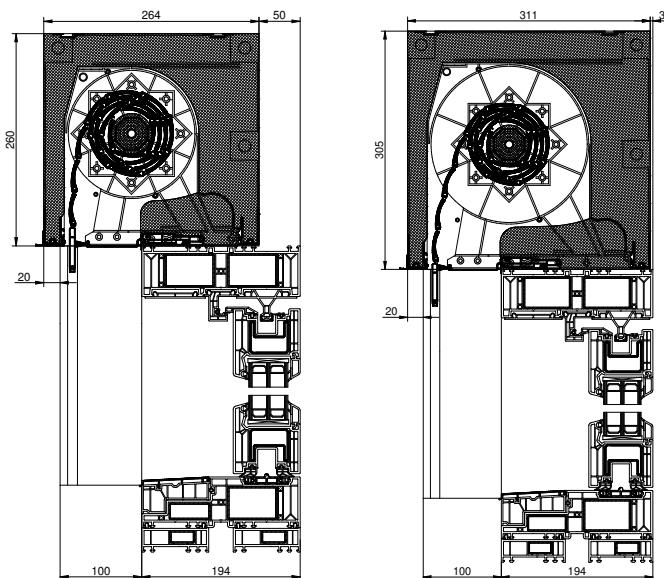
Access cover inside



Installation of the Protecta S roller shutter on HST

Protecta S RA 260

Protecta S RA 300





Colours

CURTAIN		END SLAT		RI GUIDE RAILS		RI BOX ELEMENTS	
Standard colours		Standard colours		Standard colours		Standard colours	
Silver	01	White	02	White	02	White	02
White	02	Grey	03	Dark Brown	08	Dark Brown	08
Grey	03	Dark Brown	08	Anthracite Grey	23R	Anthracite Grey	23R
Dark Brown	08	Brown	09	Walnut	28R	Walnut	28R
Brown	09	Anthracite Grey	23	Golden Oak	30R	Golden Oak	30R
Anthracite Grey	23	Walnut	28	Winchester	52R	Winchester	52R
Walnut	28	Golden Oak	30	Dark Oak	53R	Dark Oak	53R
Golden Oak	30	Special colours		Special colours		Special colours	
Black	20	Silver	01	Dark Grey Silk	25R	Anthracite Quartz F4361014	-
Light Grey	31	Black	20	Basalt Grey	33R	Black Ulti-Matt 47097	-
Basalt Grey	33	Anthracite Grey	23R	Chocolate Brown	55R	Woodec Turner Oak Malt	-
Quartz Grey	34	Walnut	28R	Silver Grey	57R	Woodec Turner Oak Toffee	-
Concrete Grey	35	Golden Oak	30R	Anthracite Quartz F4361014	-	Anthracite Grey 4365003	-
Dark Oak	36	Quartz Grey	34	Black Ulti-Matt 47097	-	Dark Grey Silk 4367003	-
Grey Aluminium	37	White Pearl Mat	40	Woodec Turner Oak Malt	-	Walnut 2178007	-
White Pearl Mat*	40	Anthracite Grey Pearl Mat	43	Woodec Turner Oak Toffee	-	Winchester 49240	-
Anthracite Grey Pearl Mat*	43	Winchester	52R	Anthracite Grey 4365003	-	Golden Oak 2178001	-
Turner Oak*	49	Dark Oak	53R	Dark Grey Silk 4367003	-	Smooth Basalt Grey 701205083	-
Winchester	52	Bleached Oak*	79R	Walnut 2178007	-	Agate Grey 703805	-
Bleached Oak*	79	Anthracite Quartz F4361014	-	Winchester 49240	-	Smooth Basalt Grey 715505083	-
Grey Metallic*	75	Black Ulti-Matt 47097	-	Golden Oak 2178001	-	Silver Grey 715505	-
Green	13	Woodec Turner Oak Malt	-	Smooth Basalt Grey 701205083	-	Earl Platinum 1293010	-
Beige	05	Woodec Turner Oak Toffee	-	Agate Grey 703805	-	Anthracite Grau Matt F470-6003	-
		Anthracite Grey 4365003	-	Smooth Basalt Grey 715505083	-	Natural Oak 3118076	-
		Dark Grey Silk 4367003	-	Silver Grey 715505	-	Jet Black 4467062	-
		Walnut 2178007	-	Earl Platinum 1293010	-	Green 600505	-
		Winchester 49240	-	Anthracite Grau Matt F470-6003	-	Chocolate Brown 887505	-
		Golden Oak 2178001	-	Natural Oak 3118076	-	White 915205	-
		Smooth Basalt Grey 701205083	-	Jet Black 4467062	-	Siena Rosso 49233	-
		Agate Grey 703805	-	Green 600505	-	Sapeli (Mahogany) 2065021	-
		Smooth Basalt Grey 715505083	-	Brown	09	Brown Black 851805	-
		Silver Grey 715505	-	Anthracite Grey	23	Basalt Grey 701205	-
		Earl Platinum 1293010	-	Chocolate Brown 887505	-	Black FN 301900002	-
		Anthracite Grau Matt F470-6003	-	White 915205	-	Light Grey 725105	-
		Natural Oak 3118076	-	Siena Rosso 49233	-	Ivory 101505	-
		Jet Black 4467062	-	Sapeli (Mahogany) 2065021	-	Quartz Grey 703905	-
		Green 600505	-	Brown Black 851805	-	Steel Blue 515005	-



END SLAT		RI GUIDE RAILS	
Special colours		Special colours	
RAL 9007	-	Basalt Grey 701205	-
RAL 9006	-	Black FN 301900002	-
RAL 9005	-	Light Grey 725105	-
RAL 7039	-	Ivory 101505	-
RAL 7023	-	Quartz Grey 703905	-
RAL 7012	-	Steel Blue 515005	-
RAL 8003	-		
RAL 1013	-		
RAL 7038	-		
RAL 7016	-		
RAL 7024	-		
RAL 1001	-		
RAL MODERN GRAPHITE	-		
RAL 8014	-		
RAL MODERN BLACK	-		
RAL ANTHRACITE	-		
RAL 7047	-		
RAL 5011	-		
RAL 7035	-		
Beige	05		
Turner Oak	49		
Turner Oak (film coating)	49R		
Chocolate Brown 887505	-		
White 915205	-		
Siena Rosso 49233	-		
Sapeli (Mahogany) 2065021	-		
Brown Black 851805	-		
Basalt Grey 701205	-		
Black FN 301900002	-		
Light Grey 725105	-		
Ivory 101505	-		
RAL 7035	-		
RAL 7037	-		
RAL 6005	-		
RAL 7002	-		
RAL 1034	-		
RAL 8011	-		
DB 703	-		
Quartz Grey 703905	-		
Steel Blue 515005	-		
RAL 7042	-		
RAL 6009	-		



RA GUIDE RAILS	
Standard colours	
White	02
Dark Brown	08
Anthracite Grey	23R
Walnut	28R
Golden Oak	30R
Dark Grey Silk	25R
Walnut	28
Golden Oak	30
Basalt Grey	33R
Winchester	52R
Dark Oak	53R
Chocolate Brown	55R
Silver Grey	57R
RAL 9007	-
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL Modern Graphite	-
RAL 8014	-
RAL Modern Black	-
RAL Anthracite	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Anthracite Quartz F4361014	-

Black Ulti-Matt 47097	-
Woodec Turner Oak Malt F470-3001	-
Woodec Turner Oak Toffee F470-3004	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Anthracite Grey 23R	-
Walnut 28R	-
Golden Oak 30R	-
RAL 9007	-
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL Modern Graphite	-
RAL 8014	-
RAL Modern Black	-
RAL Anthracite	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt F470-3001	-
Woodec Turner Oak Toffee F470-3004	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-

RA BOX ELEMENTS	
Standard colours	
White	02
Dark Brown	08
Anthracite Grey	23R
Walnut	28R
Golden Oak	30R
RAL 9007	-
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL Modern Graphite	-
RAL 8014	-
RAL Modern Black	-
RAL Anthracite	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt F470-3001	-
Woodec Turner Oak Toffee F470-3004	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-

Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Earl Platinum 1293010	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

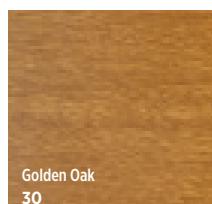
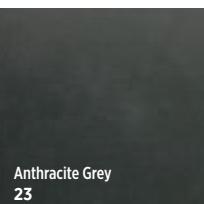
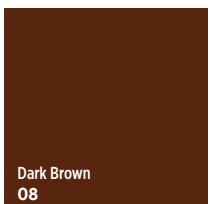
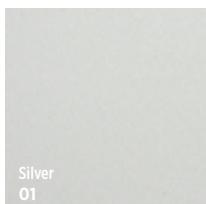


PLEASE NOTE

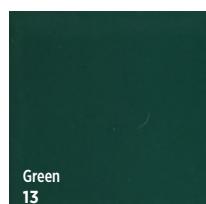
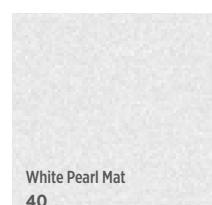
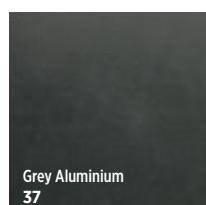
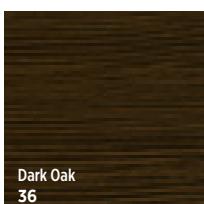
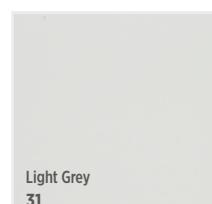
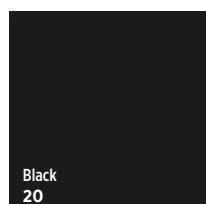
Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.
Guide rail colours include the standard guide rails PPD60/12.

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



Curtain – special colours





Somfy automatic operating units



Somfy Solus 2PA

Wired motor with mechanical limit switches, controlled with a pushbutton switch. Limit switch position is adjusted with hex key knobs.



Somfy Solus P&P VVF

Wired motor with obstacle detection, which – thanks to the Plug & Play feature – enables automatic determination of the direction of rotation and adjustment of the limit positions. The detection feature operates while closing and when an obstacle is detected in the clear opening of the roller shutter. The motor features frost protection. Pushbutton switch control.

The Somfy Lock To Play self-locking hangers must be used.



Somfy Oximo io

Wireless motor with obstacle detection, automatic limit switches, and the io-homecontrol® technology. Integrated electronic system enables constant electronic torque control. The detection feature operates while closing and when an obstacle is detected in the clear opening of the roller shutter. The motor features frost protection. Two-way feedback function, making it possible to control the device status in real time.

The Somfy Lock To Play self-locking hangers must be used.



Somfy RS100 io

Wireless motor featuring the io-homecontrol® technology, provides automatic detection of the direction of rotation, as well as automatic or fixed adjustment of the limit positions. A special feature of the RS 100 drive is the option to operate in a discrete mode, as well as soft start and stop. Two-way feedback function, making it possible to control the device status in real time.

Somfy Lock To Play self-locking hangers must be used.



Somfy RS100 io Hybrid

Motor featuring 2 control options – wired and wireless. It can be controlled with an io controller or with a regular roller shutter switch. The motor provides automatic detection of the direction of rotation, as well as automatic or fixed adjustment of the limit positions. A special feature of the RS 100 drive is the option to operate in a discrete mode, as well as soft start and stop. Two-way feedback function, making it possible to control the device status in real time.

The Somfy Lock To Play self-locking hangers must be used.



Somfy RS100 Solar io

The RS100 Solar io combines the advantages of our traditional drives with solar power supply: Quiet operation, smart home ready drive unit, reliability. Wireless motor featuring the io-homecontrol® technology, provides automatic detection of the direction of rotation, as well as automatic or fixed adjustment of the limit positions. A special feature of the RS 100 drive is the option to operate in a discrete mode, as well as soft start and stop. Two-way feedback function, making it possible to control the device status in real time. The motor kit includes a 2.5 W solar panel for 6 Nm and 10 Nm motors, and a 5.8 W panel for the 15 Nm motor. Panel service life > 20 years. Another component of the motor kit is a 2,200 mAh battery, which allows the roller shutter to operate without sunlight for 45 days. The battery is installed inside the box. Battery service life > 8 years.

The Somfy Lock To Play self-locking hangers must be used.



Protecta Connected

Thanks to the WIŚNIOWSKI Connected smart roller shutter control system, you gain the option to automatically close the shutters after dusk and open them at sunrise, based on location data. You can create custom schedules and trigger actions at specific times of the day. Additionally, our solutions enable control of roller shutter groups, making it possible to open or close all shutters at once with a single gesture. Local control via buttons and remote control via the WIŚNIOWSKI app are both available.

io-homecontrol® control units



TaHoma Switch

One system to control it all

With the TaHoma Switch, you can control the devices at your home with your smartphone, tablet or computer. A clear interface and an intuitive system make it a system that is easy to use for anyone. Additional, immediate feedback gives you certainty that the tasks were performed properly and no obstacles were encountered. The TaHoma system also makes it possible to connect alarm systems, cameras, window opening sensors, and motion sensors. All these devices can be activated manually or automatically. You can freely activate them using individual scenarios, such as "open all roller shutters", "lighting on" or "arm the alarm", which effectively scares away potential intruders. The application pushes a notification to your smartphone each time an intruder is present in your home.

- The central control unit is compatible with almost 300 Somfy product types.
- Roller shutters
- Blinds and shutters
- Pergolas and awnings
- Gates, garage doors and door locks
- Lighting and smart sockets
- Cameras and alarms
- Heating
- Sensors
- Music and voice assistants

This exceptionally simple and intuitive system allows you to create 40 scenarios for over 200 home devices! You can freely modify each scenario and launch it whenever you want or on scheduled days and times. Do it all at a tap of a button on your smartphone, tablet or laptop.

Central control unit dimensions: (length x width x height): 110 x 71.25 x 28.13 mm



Nina Timer io

A remote with a touch screen display for central manual or automatic control of io drive units and io receivers. Product advantages:

- Two-way communication between the remote and the io drive / io receiver,
- notification about the performance of a request on the display,
- easily create scenarios for rooms, groups, floors and the entire home,
- ability to freely program up to 8 time commands for a single work schedule,
- presence simulation, Cosmic program in the evening,
- home mapping feature, assigning products to rooms, floors and groups,
- dimensions: 150mm x 65mm x 90mm.



Nina io

A remote with a 5" touch screen for central and manual control of io drives and receivers. Product advantages:

- ability to switch the io drives and receivers to the required position thanks to pictograms when in manual operation,
- easily create scenarios for rooms, groups, floors and the entire home,
- home mapping feature, assigning products to rooms, floors and groups,
- notification about the performance of a request on the display,
- dimensions: 145mm x 61mm x 22mm.



Situo 1 io

1-channel portable remote with individual, group, and central operation. The "UP" button for opening the roller shutter, "DOWN" for closing, "MY" for stopping the current movement or activating the comfortable position. The kit includes a wall bracket for flexible installation. Available in the following colours: Pure.



Situo 5 io

5-channel portable remote with individual, group, and central operation. The "UP" button for opening the roller shutter, "DOWN" for closing, "MY" for stopping the current movement, activating the comfortable position or choosing the channel. LED showing the transmission status and battery level. The kit includes a wall bracket for flexible installation. Available in the following colours: Pure.



Ysia Patio

A simple, intuitive, high-quality 16-channel io remote control for terrace applications, including roller shutter operation - designed for the most advanced users. The remote enables individual or group control of products, features a screen that is readable both in bright sunlight and at night (automatic brightness adjustment), and provides feedback on low battery and successful command transmission. The easy-to-use, ergonomic rotary controller ensures excellent control over all devices and enables precise management of natural light entering the home. Available in Pure and Anthracite colours.



Amy 1 io

Wall-mounted transmitter for controlling a single io device or one group of io devices, based on temperature measurement from an integrated sensor. A LED indicator provides feedback when commands are sent and displays battery status. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Amy 1 RS100 io

Wall-mounted transmitter for controlling a single io device or one group of io devices. Enables device automation via TaHoma thanks to an integrated temperature sensor. Version with a silent-mode switch for the drive unit. The "my" button allows the device to be set to a previously configured favourite position. A LED indicator provides feedback when commands are sent and displays battery status. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Amy 1 A/M Modes io

Wall-mounted transmitter for controlling a single io device or one group of io devices. Enables device automation via TaHoma thanks to an integrated temperature sensor. Version dedicated for operating blinds/roller shutters in an automatic or manual mode. The "my" button allows the device to be set to a previously configured favourite position. The indoor temperature sensor, compatible with the TaHoma ecosystem, enables easy creation of advanced scenarios. A LED indicator provides feedback when commands are sent and displays battery status. Set includes: Amy transmitter, frame, batteries. Available in Pure colour



Amy 2 Modes io

Wall-mounted transmitter for controlling two io devices or two groups of io devices. Designed for controlling all types of shading system drives. Does not include a built-in temperature sensor. A LED indicator provides feedback when commands are sent and displays battery status. The "my" button allows the device to be set to a previously configured favourite position. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Amy 4 Modes io

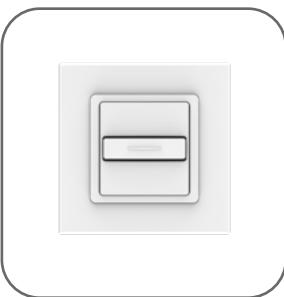
Wall-mounted transmitter for controlling four io devices or four groups of io devices. Designed for controlling all types of shading system drives. Does not include a built-in temperature sensor. A LED indicator provides feedback when commands are sent and displays battery status. The "my" button allows the device to be set to a previously configured favourite position. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Chronis io

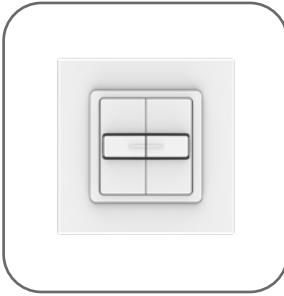
1-channel programmer timer. It can program a maximum of 4 individual opening and closing times for all days of the week. Easy to read, large display with a bright, light blue backlight. Automatic summer and winter time change. The Cosmic feature makes it possible to close the roller shutters at dusk. Wireless programmer, battery-powered.

Wired control



Smoove Uno WT

A switch with impulse maintenance for manual control of the wired drive or wired drive with obstacle detection. Control with up-stop-down buttons.



Smoove Duo WT

A switch with impulse maintenance for manual control of two independent wired drives or wired drives with obstacle detection. Control with up-stop-down buttons.



Chronis Smoove Uno

Programmer timer. Large backlit display for easy menu-based control and programming using a text display. Day and week program, possibility to program individual opening and closing times for each day of the week and for the entire week. Cosmic feature for evenings. Available in the following colours: Pure with a Pure frame, Black.



Somfy Smoove frames

For use with all Smoove series remotes and programmers.

ALUPROF accessories



Aluprof wired motor

Motor series DM35S and YYGL35S (winding tube $\phi 40$), as well as the DM45S and YYGL45S series (winding tube $\phi 60$) with mechanical limit switches, controlled with a pushbutton switch.



Aluprof wired motor with overload detection

Motors with overload detection series DM35BD (winding tube $\phi 40$) and series DM45BD (winding tube $\phi 60$) with built-in electronic limit switches, controlled with a pushbutton switch.

The Somfy Lock To Play self-locking hangers must be used.



Aluprof wireless motor

Motor series DM35R (winding tube $\phi 40$) and DM45R (winding tube $\phi 60$) with a built-in wireless receiver and mechanical limit switches, controlled with the DC series wireless transmitters.



Aluprof wireless motor with overload detection

Motors with overload detection series DM35E (winding tube $\phi 40$) and series DM45E (winding tube $\phi 60$) with a built-in wireless receiver and electronic limit switches, controlled with the DC series wireless transmitters. Compatible with a bell switch.

The Somfy Lock To Play self-locking hangers must be used.



1-channel DC1600 remote

1-channel portable remote activates 1 device or automated group. Up to 200 m range in open and 35 m in closed spaces. Compatible with motor series DM35R, DM45R, DM35E and DM45E, as well as the DC series central control units.



15-channel DC1602 remote

15-channel portable remote activates 15 devices or automated groups. Up to 200 m range in open and 35 m in closed spaces. Compatible with motor series DM35R, DM45R, DM35E and DM45E, as well as the DC series central control units.



DC1670 1-channel wall-mounted transmitter

1-channel wall-mounted transmitter activates 1 device or automated group. Up to 200 m range in open and 35 m in closed spaces. Compatible with motor series DM35R, DM45R, DM35E and DM45E, as well as the DC series central control units.



DC1671 2-channel wall-mounted transmitter

2-channel wall-mounted transmitter activates 2 devices or automated groups. Up to 200 m range in open and 35 m in closed spaces. Compatible with motor series DM35R, DM45R, DM35E and DM45E, as well as the DC series central control units.



DC1675 1-channel wall-mounted transmitter, programmer timer

1-channel wall-mounted transmitter activates 1 device or automated group. Can program custom opening and closing hours for roller shutters. Up to 200 m range in open and 35 m in closed spaces. Compatible with motor series DM35R, DM45R, DM35E and DM45E, as well as the DC series central control units.



DC1676 5-channel wall-mounted transmitter, programmer timer

5-channel wall-mounted transmitter activates 5 devices or automated groups. Can program custom opening and closing hours for roller shutters. Up to 200 m range in open and 35 m in closed spaces. Compatible with motor series DM35R, DM45R, DM35E and DM45E, as well as the DC series central control units.



DC1690 1-channel flush-mounted switch with built-in wireless

Universal flush-mounted switch (with or without impulse maintenance), activates 1 motor. With a built-in wireless central control unit and compatible with DC series transmitters.



DC73A wireless central control unit (installed in the box)

For installation in roller shutter boxes from 165 mm. Accepts one drive with power up to 400 W. Compatible with wired motors, provides wireless transmission for a wired motor.



AL-RSP02 flush-mounted wireless controller

Flush-mounted wireless central control unit for controlling a single drive. Installed in a standard flush-mounted box, compatible with all DC series transmitters.



DC 318

The DC 318 flush-mounted switch with a built-in radio receiver (universal with or without impulse maintenance) activates one device. It has a built-in wireless central control unit and is compatible with the DC series transmitters (excluding DC115B).



DC 320

The DC 320 wall-mounted transmitter activates 1 automation device (group); range up to 200 m in open spaces and up to 35 m indoors.

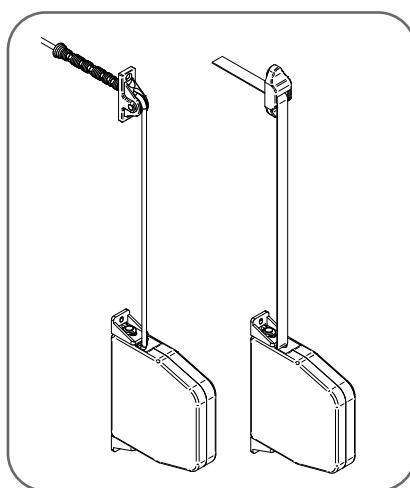


DC 920

The DC 920 portable transmitter – timer with an LCD display. Activates 5 automation devices (groups). Custom opening and closing hours can be programmed. Range up to 200 m in open spaces, up to 35 m indoors. Compatible with the following actuators: DM35EV/Y, DM45EV/Y, DM35R, DM45R, DM45RM, DM55RM, DM59RM, as well as the DC series radio receivers and central control units (excluding DC256).



Accessories



Cord/tape winder

Winding mechanism for controlling external shutters manually. For roller shutters with a surface area up to 3.5 m². Available in white and brown.

Cord

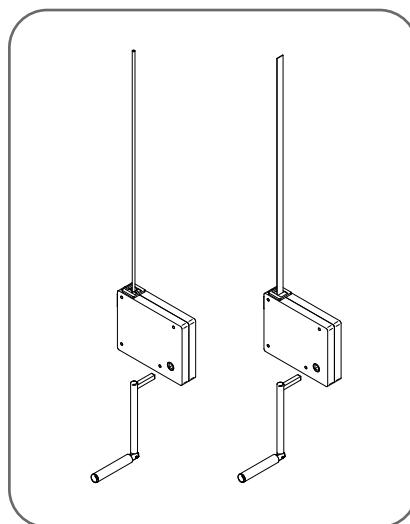
Diameter 4.5 mm, a cord winder accessory. Available in white and brown.

Tape

Width 14 mm, a tape winder accessory. Available in grey and brown.

PLEASE NOTE

In single-leaf windows, the winder is recommended to be mounted on the handle side. If manual roller shutter operation is selected on the hinge side, we recommend installing the winder on the wall or the reveal. If wall or reveal installation is not possible, we recommend adding a minimum 30 mm window widening and specifying the roller shutter as a separate item – installation on the production line is not possible.

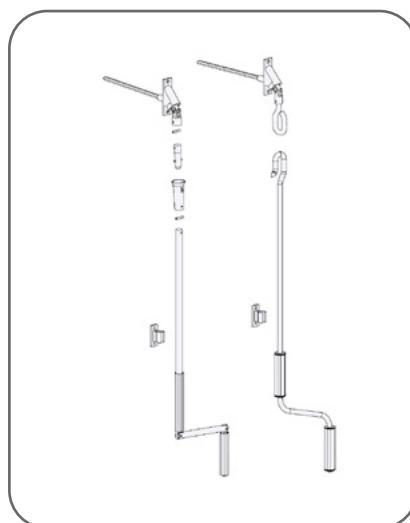


Crank winder - cord/tape

Winding mechanism for controlling external shutters manually. Includes a winder housing, Mignon crank, and a plate for fixing the winder. For roller shutters with a surface area up to 5 m². Available in white and brown.

PLEASE NOTE

In single-leaf windows, the winder is recommended to be mounted on the handle side.

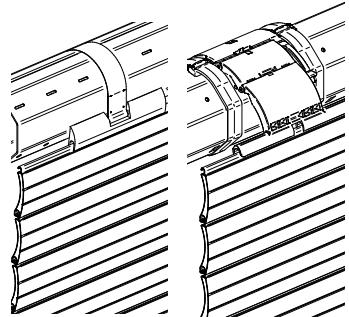


Cardan joint with a hook

The crank is the drive component of the ANR mechanism installed inside the roller shutter box. When the crank is rotated, torque is transferred to the winding tube, causing the curtain to roll up or down. Available in versions operable at a 45° or 90° angle. The Cardan joint is finished with a hook.

Cardan joint with an eyelet

The crank is the drive component of the ANR mechanism installed inside the roller shutter box. When the crank is rotated, torque is transferred to the winding tube, causing the curtain to roll up or down. Available in versions operable at a 45° or 90° angle. The Cardan joint is finished with an eyelet and operated with a crank with a hook.



Hanger

Standard roller shutter curtain hanger, steel with a PVC inlet and felt lining. Felt provides additional protection from scratching the curtain, which can occur when the curtain is wound on the winding tube.

Lock To Play locking hanger

Hard hanger paired with motors with obstacle detection. When an obstacle occurs in the path of the curtain, it improves the curtain's resistance to damage. The slats in the lower end position are stiffened and locked, which prevents the roller shutter from making noise in the wind. The locker is seated on two snap rings and does not require the use of installation tools.

Wind load resistance class in accordance with PN-EN13659

POLAND

Terrain categories:

- 0 – Sea or coastal areas with wind flowing over the open sea
- I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
- II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
- III – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
- IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	22
II	26
III	22

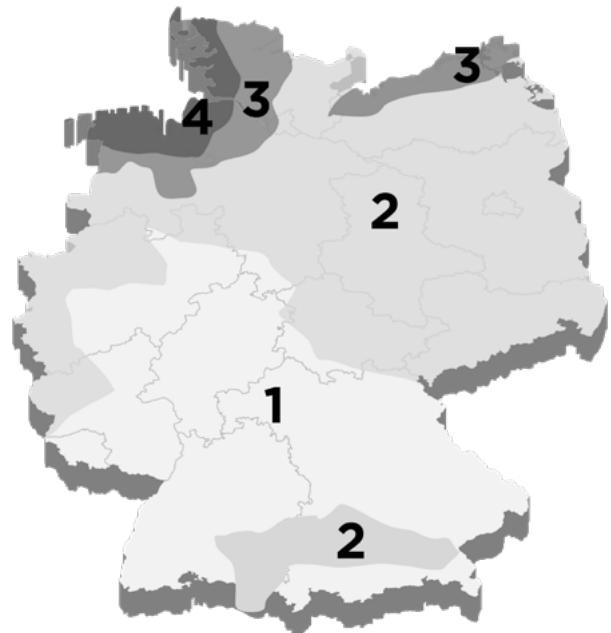
Assignment of roller shutter wind load resistance classes to the wind load zones in Poland																		
Criterion		Roller shutter installation height on a building																
Terrain category	Requirements	up to 9 m			9 to 18 m			18 to 28 m			28 to 50 m			50 to 100 m				
		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		
		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II
0	Wind load resistance class	3	4	3	4	4	4	4	4	4	4	5	4	4	5	4	4	4
I		3	4	3	3	4	3	4	4	4	4	4	4	4	4	5	4	4
II		2	3	2	3	4	3	3	4	3	4	4	4	4	4	5	4	4
III		2	3	2	3	3	3	3	4	3	3	4	3	4	4	4	4	4
IV		1	2	1	2	3	2	2	3	2	3	4	3	3	4	3	4	3



GERMANY

Terrain categories:

- 0** – Sea or coastal areas with wind flowing over the open sea
- I** – Lakes or flat and horizontal area with negligible vegetation and no obstacles
- II** – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
- III** – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
- IV** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m
- V** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



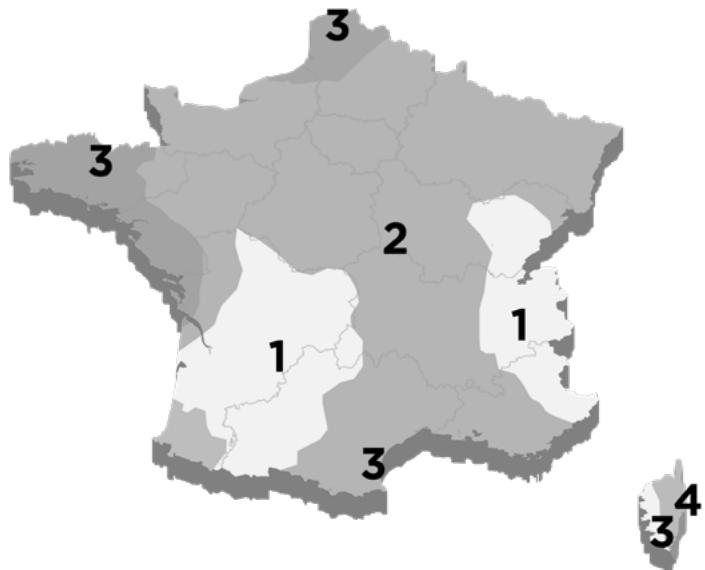
Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	22.5
II	25
III	27.5
IV	30

		Assignment of roller shutter wind load resistance classes to the wind load zones in Germany																				
Criterion		Roller shutter installation height on a building																				
Terrain category	Requirements	up to 9 m				9 to 18 m				18 to 28 m				28 to 50 m				50 to 100 m				
		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		Wind zone		
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	
0	Wind load resistance class	3	4	4	5	4	4	4	5	4	4	4	5	5	4	4	5	5	4	5	5	5
I		3	4	4	4	4	4	4	5	4	4	4	5	5	4	4	5	5	4	5	5	5
II		3	3	4	4	3	4	4	4	4	4	4	4	5	4	4	5	5	4	5	5	5
III		2	2	3	3	3	4	4	3	3	4	4	3	4	4	4	5	4	4	5	5	5
IV		1	1	2	2	2	2	3	3	2	3	3	4	3	3	4	4	3	4	4	4	5

FRANCE

Terrain categories:

- 0** – Sea or coastal areas with wind flowing over the open sea
- I** – Lakes or flat and horizontal area with negligible vegetation and no obstacles
- II** – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
- IIIa** – Rural area with fences / hedges, vineyards, scattered homes
- IIIb** – Urbanized or industrial areas; thick groves; orchards
- IV** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



Wind speeds (PN-EN 1991-1-4)														
Wind zone			Metropolitan France				Wind zone				Oversea departments			
I	V _k (m/s)	22	Guadeloupe				Guyana				Martinique			
II		24	Mayotte				Réunion				36			
III		26	32				30				17			
IV		28	34											

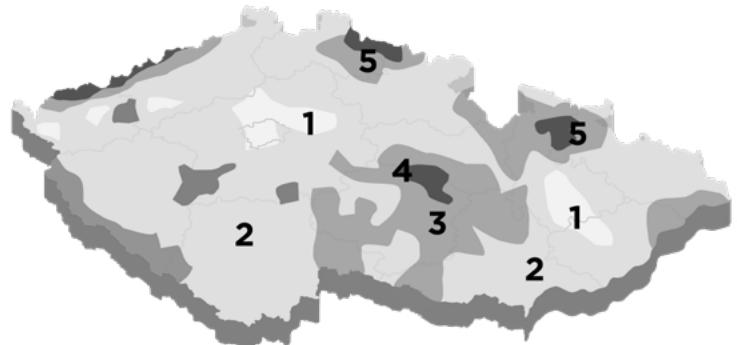
Assignment of roller shutter wind load resistance classes to the wind load zones in France																										
Criterion		Roller shutter installation height on a building																								
		up to 9 m				9 to 18 m				18 to 28 m				28 to 50 m				50 to 100 m								
		Wind zone				Wind zone				Wind zone				Wind zone				Wind zone								
Terrain category	Requirements	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	
		3	4	4	4	4	4	4	4	4	4	4	4	5	4	4	5	5	4	4	5	5	4	4	5	5
Wind load resistance class	0	3	3	4	4	3	4	4	4	3	4	4	4	4	4	4	4	4	4	4	5	4	4	5	5	
	II	2	2	3	3	3	3	3	4	3	3	4	4	3	4	4	4	3	4	4	4	4	4	4	4	5
	IIIa	1	2	2	2	2	2	3	3	2	3	3	4	3	3	4	4	3	4	4	4	4	4	4	4	5
	IIIb	1	1	2	2	1	2	2	3	2	2	3	3	2	3	3	4	3	4	4	3	4	4	4	4	4
	IV	1	1	2	2	1	2	2	3	2	2	3	3	2	3	3	4	3	4	3	4	3	4	4	4	4



CZECH REPUBLIC

Terrain categories:

- 0** – Sea or coastal areas with wind flowing over the open sea
- I** – Lakes or flat and horizontal area with negligible vegetation and no obstacles
- II** – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
- III** – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
- IV** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m
- V** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



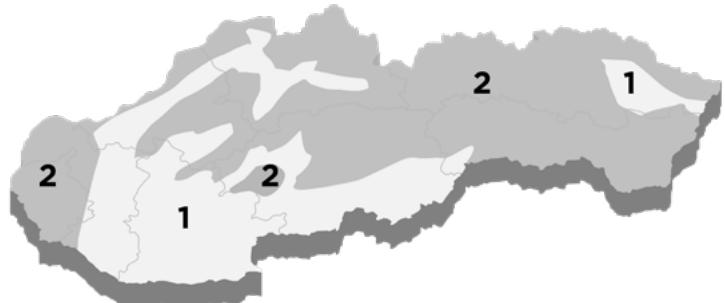
Wind speeds (PN-EN 1991-1-4)					
Wind zone	V _k (m/s)				
I	22.5				
II	25				
III	27.5				
IV	30				
V	36				

Assignment of roller shutter wind load resistance classes to the wind load zones in the Czech Republic																										
Criterion		Roller shutter installation height on a building																								
		up to 9 m					9 to 18 m					18 to 28 m					28 to 50 m					50 to 100 m				
		Wind zone					Wind zone					Wind zone					Wind zone					Wind zone				
Terrain category	Requirements	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
		3	4	4	4	5	4	4	4	5	5	4	4	5	5	6	4	4	5	5	6	4	5	5	5	6
Wind load resistance class	Wind load resistance class	3	3	4	4	5	3	4	4	4	5	4	4	4	5	5	4	4	5	5	6	4	4	5	5	6
		2	2	3	3	4	3	3	4	4	5	3	3	4	4	5	3	4	4	5	5	4	4	5	5	6
		3	4	4	4	5	4	4	4	5	5	4	4	5	5	6	4	4	5	5	6	4	5	5	5	6

SLOVAKIA

Terrain categories:

- 0** – Sea or coastal areas with wind flowing over the open sea
- I** – Lakes or flat and horizontal area with negligible vegetation and no obstacles
- II** – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
- III** – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
- IV** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	24
II	26
III	30
IV	33

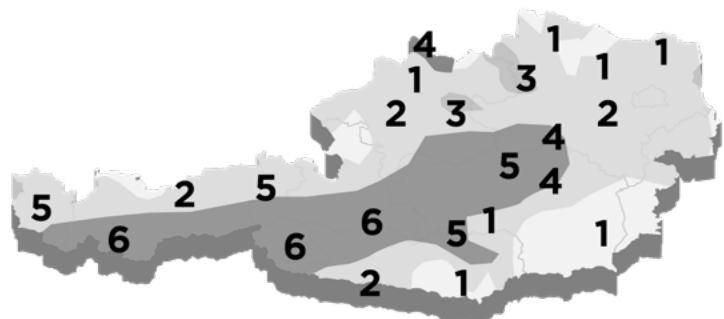
		Assignment of roller shutter wind load resistance classes to the wind load zones in Slovakia																			
		Roller shutter installation height on a building																			
Terrain category	Requirements	up to 9 m				9 to 18 m				18 to 28 m				28 to 50 m				50 to 100 m			
		Wind zone				Wind zone				Wind zone				Wind zone				Wind zone			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
I	Wind load resistance class	1	2	2	3	2	2	3	4	3	3	4	4	3	4	4	4	4	4	5	5
II		3	4	4	4	4	4	4	5	4	4	5	5	4	4	5	5	4	5	5	6
III		2	3	3	4	3	3	4	4	3	4	4	5	4	4	5	5	4	4	5	5
IV		1	2	2	3	2	2	3	4	3	3	4	4	3	4	4	4	4	4	5	5



AUSTRIA

Terrain categories:

- 0** – Sea or coastal areas with wind flowing over the open sea
- I** – Lakes or flat and horizontal area with negligible vegetation and no obstacles
- II** – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
- III** – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
- IV** – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	24.2
II	27.5
III	30.8
IV	37.4
V	44
VI	50.6

		Assignment of roller shutter wind load resistance classes to the wind load zones in Austria																													
		Roller shutter installation height on a building																													
Ter- rain- cate- gory	Require- ments	up to 9 m						9 to 18 m						18 to 28 m						28 to 50 m						50 to 100 m					
		Wind zone						Wind zone						Wind zone						Wind zone						Wind zone					
		I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI
II	Wind load resistance class	3	4	4	5	5	6	3	4	4	5	6	6	4	4	4	5	6	6	4	4	5	6	6	6	4	5	5	6	6	6
III		2	3	4	4	5	6	3	4	4	5	5	6	3	4	4	5	6	6	4	4	5	5	6	6	4	4	5	6	6	6
IV		1	2	3	4	4	5	2	3	3	4	5	5	2	3	4	4	5	6	3	4	4	5	6	6	4	4	5	5	6	6



PLEASE NOTE

These tables apply to areas situated up to 300 m above sea level and roller shutter installation at the height of up to 100 m. All other cases have to be considered on an individual basis.

Roller shutter resistance classes to wind load							
Class	0	1	2	3	4	5	6
Reference test pressure p (N/m ²)	< 50	50	70	100	170	270	400
Safe test pressure 1.5 p (N/m ²)	< 75	75	100	150	250	400	600

Maximum roller shutter widths in accordance with the classes of resistance to wind load

Max. roller shutter width including guide rails in mm for the PA39	Wind load resistance class in accordance with PN-EN13659					
	1	2	3	4	5	6
for guide rails: PP53, PP53/ODS/20, PK53, PK53/120, PPD79, PPD79/ODS, PPD79/ODS/20, PPDM079	<=3,200	<=2,900	<=2,500	<=2,100	<=1,800	<=1,600
for guide rails: PP68	<=3,900	<=3,400	<=2,900	<=2,300	<=2,000	<=1,900
for guide rails: PP60/12; PPD60/12; PPDA60/12; PPD-P60/12; PPDA-P60/12	<=3,300	<=3,000	<=2,600	<=2,200	-	-
for guide rails: PPRA/12, PPMRA/12, PPARA/12, PPMARA/12	<=3,000	<=2,600	<=2,300	<=2,000	-	-

Max. roller shutter width including guide rails in mm for the PA43	Wind load resistance class in accordance with PN-EN13659					
	1	2	3	4	5	6
for guide rails: PP53, PP53/ODS/20, PK53, PK53/120, PPD79, PPD79/ODS, PPD79/ODS/20, PPDM079	<=3,300	<=3,000	<=2,600	<=2,200	<=1,900	<=1,600
for guide rails: PP68	<=3,900	<=3,400	<=3,000	<=2,400	<=2,100	<=1,800
for guide rails: PP60/12; PPD60/12; PPDA60/12; PPD-P60/12; PPDA-P60/12	<=3,300	<=3,000	<=2,600	<=2,200	-	-
for guide rails: PPRA/12, PPMRA/12, PPARA/12, PPMARA/12	<=2,900	<=2,600	<=2,300	<=2,000	-	-

Max. roller shutter width including guide rails in mm for the BP41R-0	Wind load resistance class in accordance with PN-EN13659					
	1	2	3	4	5	6
for guide rails: PP53, PP53/ODS/20, PK53, PK53/120, PPD79, PPD79/ODS, PPD79/ODS/20, PPDM079	-	<=2,800	<=2,600	<=2,600	<=2,600	<=2,600
for guide rails: PP68	-	-	<=2,800	<=2,600	<=2,200	<=1,800

Max. roller shutter width including guide rails in mm for the BP41R-0 + MKT	Wind load resistance class in accordance with PN-EN13659		
	4	5	6
for guide rails: PPD053, PPD079	<=1,700	<=1,700	<=1,600

Max. roller shutter width including guide rails in mm for the PA39 + MKT	Wind load resistance class in accordance with PN-EN13659		
	4	5	6
for guide rails: PPD053, PPD079	<=1,700	<=1,700	<=1,600
for guide rails: PPDMW-; PPDMW-P-; PPDAMW-; PPDAMW-P; PPMO 60/12	<=1,700	<=1,700	<=1,600

Max. roller shutter width including guide rails in mm for the PA43 + MKT	Wind load resistance class in accordance with PN-EN13659		
	4	5	6
for guide rails: PPD053, PPD079	<=1,700	<=1,700	<=1,600
for guide rails: PPDMW-; PPDMW-P-; PPDAMW-; PPDAMW-P; PPMO 60/12	<=1,700	<=1,700	<=1,600





Protecta P roller shutters, nut brown colour (28).



Protecta P roller shutter, anthracite grey colour (23).

**WIŚNIOWSKI**

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