

Sliding shutters – automation in motion.

Hardware for simultaneously automatic sliding up to 2 wood, metal or aluminium sliding shutters up to 140 kg (308 lbs.).

Description

HAWA-Frontslide 140/matic-Telescopic can automatically move up to 2 sliding shutters simultaneously when combined with HAWA-Frontslide 140/matic drive components.

Its brushless electric motor, a HAWA-Motronic 140 with a high-quality transmission system and drive belt, guarantees a stable, maintenance-free system with a long life. No special connection cables or control box are required as the controls are integrated in the drive unit. Electrical installation therefore corresponds to the usual standard for shutter designs and enables the use of commercially available operating elements.

The HAWA-Frontslide 100/matic-Telescopic allows maximum flexibility in façade design. Aluminium covering screens in either natural anodized or plain finishes ready for custom painting provide aesthetic appeal and are easily clipped on to the inside and/or outside of the top track. Top track and drive units are covered with one aluminium covering screen only.

Applications

Ideal for façades with a high proportion of glass, wherever screening and shade form part of the façade design, and where space is at a premium, e.g. schools, hotels, public buildings, office and administration premises, apartment buildings, low-energy houses, etc.

Features of the

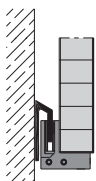
HAWA-Frontslide 140/matic-Telescopic

- Max. sliding shutter weight with 2 shutters: 140 kg (lbs.)/shutter
- Sliding shutter thickness: 28–40 mm ($1\frac{1}{8}$ – $1\frac{19}{32}$ ")
- Sliding shutter width: 750 mm–1200 mm ($2'5\frac{17}{32}$ "– $3'11\frac{1}{4}$ ")
- Maximum sliding shutter height: 3200 mm (10'6")
- Fibreglass-reinforced toothed belts guarantee high tensile strength and a low level of expansion
- Sliding shutters can be brought into any position
- Fast and efficient assembly from below and from the façade side
- Shutters can be removed without loosening the toothed belt
- Clip-on covers for attachment to inside and/or outside of track
- Different design options of bottom guides
- Drive unit: CE tested, technical details: → following page



For dimensioning reasons the drive unit (M) must be positioned opposite the stacking space.

Guides
→ page 112



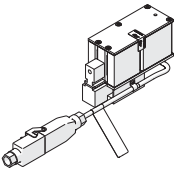
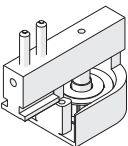
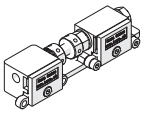

Drive unit HAWA-Motronic 140

HAWA-Motronic 140 is a drive unit with integrated control for automating sliding hardware with a speed of 50 mm ($1 \frac{31}{32}$ "/s) and a maximum drive force of 100 N. Drive commands are triggered by applying a current to the control wires. The HAWA-Motronic 140 drive automatically detects the end position of the sliding shutter during the teach-in process. The drive stops and reverses (2x) when it encounters an obstacle.

HAWA-Motronic 140, set for sliding shutter drive

	code
HAWA-Motronic 140 for HAWA-Frontslide 140/matic, incl. control unit, toothed belt lock and pulley wheel	25148

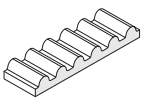
Set comprising

	piece	code
 HAWA-Motronic 140 with integrated control and connecting cable with a premounted Hirschmann plug	1	25063
 Pulley wheel for automatic mechanism	1	24792
 Toothed belt lock	1	19654
 End stop alu	2	24786

Toothed belt

Fibreglass-reinforced toothed belts guarantee high tensile strength and a low level of expansion and high impact load resistance when subjected to heavy flexing.

Toothed belt

	length	code
 Zahnriemen glasfaserverstärkt, schwarz	2.7 m ($8'10 \frac{5}{16}$ ")	20208
	5 m ($16'4 \frac{27}{32}$ ")	19667
	8 m ($26'2 \frac{31}{32}$ ")	19682
	10 m ($32'9 \frac{23}{32}$ ")	19668
	15 m ($49'2 \frac{9}{16}$ ")	20370
	50 m ($164' \frac{1}{2}$ ")	19669

Berechnung der Zahnriemenlänge:

HAWA-Frontslide 140/matic-Telescopic: 2 x installation width

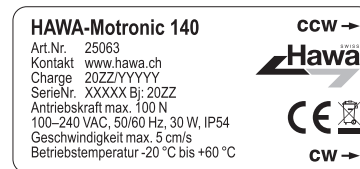
(Das Zahnriemens Schloss ist in der Garnitur HAWA-Motronic 25148 enthalten)

Technical details HAWA-Motronic 140

- The control is integrated in the drive unit
- Power supply: 100–240 VAC, 50/60 Hz, 30 W
- Max. pre-fuse: 16 A
- Overvoltage category: II
- Protection class: I ⊕
- Operational temperature range: -20 °C – +60 °C
- Degree of siling: 1
- Degree of protection: IP 54
- Max. speed: 50 mm ($1 \frac{31}{32}$ "/s)
- Max. drive force: 100 N (protected internally against overload)
- Drive unit: CE tested
- Switch elements: provided by customer
- Mains electrical isolation: provided by customer

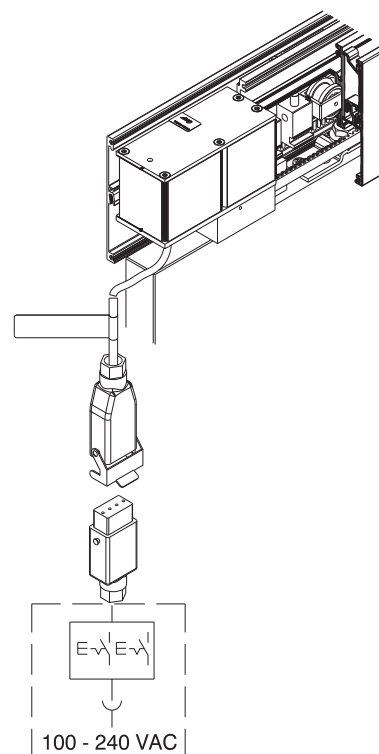
Type label

Every drive unit carries a type label.



Control and operation of the system

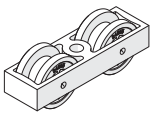
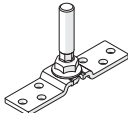
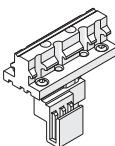
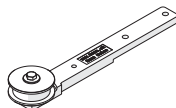
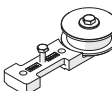
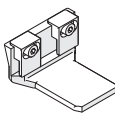
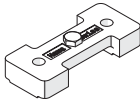
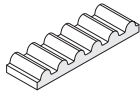
The systems are operated with commercially available electrical switches.



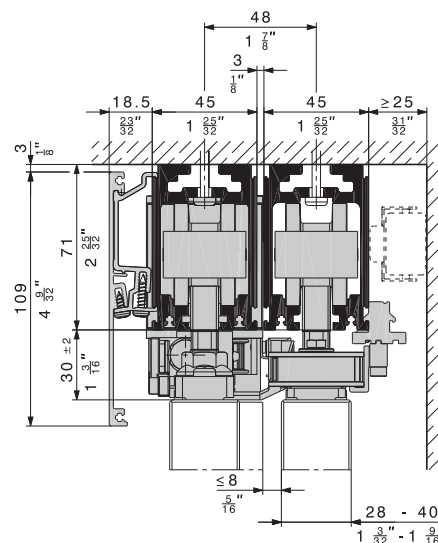
Set without top tracks and bottom guide channels

	code
HAWA-Frontslide 140/matic-Telescopic 2, set for 2 sliding shutters, 750 mm–1200 mm (2'5 ¹⁷ / ₃₂ "–3'11 ¹ / ₄ ")	25145

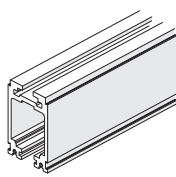

Set comprising

	piece	code
	Two-wheeled trolley, M12, with plastic wheels	4 24554
	Top fixing plate, stainless steel, with hanger bolt M12	4 24567
	Toothed belt clamp for manual and automatic systems	1 25060
	Guide pulley wheel, with fixing plate, long	1 20139
	Guide pulley wheel, with fixing plate, short	1 20140
	Driver, wide	1 20141
	Driver counter-plate, wide	1 20246
	Toothed belt, black, 2,7 m (8'10 ⁵ / ₁₆ "), fibreglass reinforced	1 20208

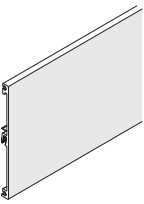


Two sliding shutters of up to 140 kg max. per panel



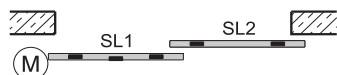
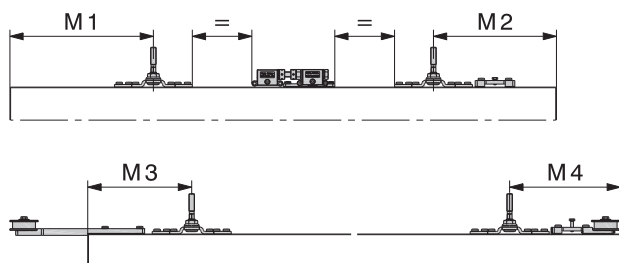
Top tracks for installations with or without covering screens

Caution: Hole positions vary.		mm/inch	code
	Top track, alu plain anodized, predrilled	3500 (11'5 ¹³ / ₁₆ "	24841
		6000 (19'8 ⁷ / ₃₂ "	24799
		cut to size	24800
	Connecting bolts, set of 6 pieces		17221

Covering screens

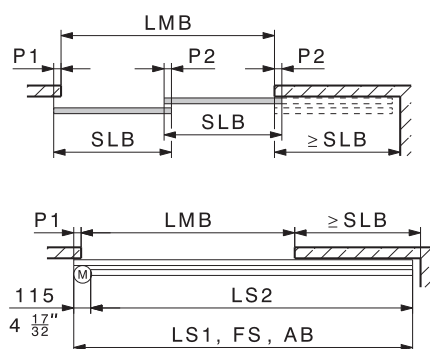
		mm/inch	code
	Covering screens, alu plain anodized	3500 (11'5 ¹³ / ₁₆ ")	24845
		6000 (19'8 ⁷ / ₃₂ ")	24808
		cut to size	24809
	Covering screens, alu unanodized	6000 (19'8 ⁷ / ₃₂ ")	24810
		cut to size	24811
	Parts for fitting top track cover, set of 5 pieces		24767
	Connecting bolts, set of 6 pieces		17221

Calculation for suspension points



140/matic	M1	M2	M3	M4
SL1	235 mm (9 ¹ / ₄ ")	180 mm (7 ³ / ₃₂ ")		
SL2			170 mm (6 ¹¹ / ₁₆ ")	170 mm (6 ¹¹ / ₁₆ ")

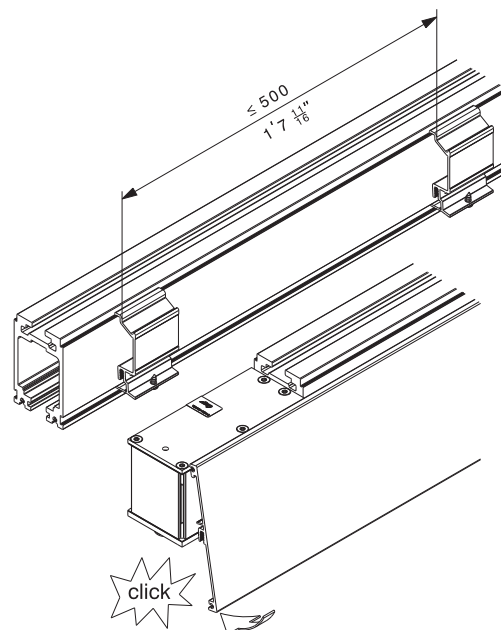
Calculation for sliding shutter width



$SLB = \frac{LMB + P1 + P2}{AL}$ $P2 \geq 50 \text{ mm (1 } \frac{31}{32} \text{")}$	<table border="1"> <tbody> <tr> <td>AB</td> <td>Installation width</td> </tr> <tr> <td>LMB</td> <td>Entire opening width</td> </tr> <tr> <td>AL</td> <td>Number of sliding shutters</td> </tr> <tr> <td>SLB</td> <td>Sliding shutter width</td> </tr> <tr> <td>P</td> <td>Sliding shutter overlap</td> </tr> <tr> <td>LS1</td> <td>Inner top track</td> </tr> <tr> <td>LS2</td> <td>Outer top track</td> </tr> <tr> <td>FS</td> <td>Bottom guide channel</td> </tr> </tbody> </table>	AB	Installation width	LMB	Entire opening width	AL	Number of sliding shutters	SLB	Sliding shutter width	P	Sliding shutter overlap	LS1	Inner top track	LS2	Outer top track	FS	Bottom guide channel
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Fitting the covering screens

Cover fixings (code 24767) are required for attaching the covering screens.



Bottom guides

Bottom guides: → page 112.

Order specifications

- Number of sets HAWA-Motronic 140
- Number of sets HAWA-Frontslide 140/matic-Telescopic 2
- Number and length of toothed belt
- Number and length of top tracks
- Number, length and type of covering screens
- Number of fitting parts to covering screens
- Number and type of guides

Optional order specifications

- Number of connecting bolt sets to profiles and covering screens

Planning/installation

For planning and installation purposes, please use the installation drawing code 24993. (→ www.hawa.ch → HAWA-Productfinder)

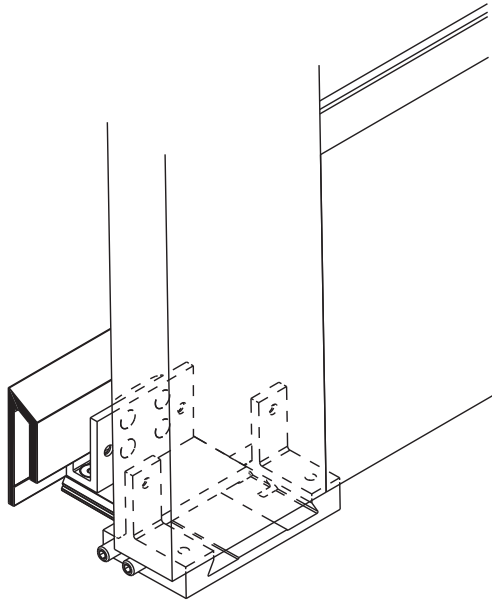
Special regulations apply to automated installations; please refer to operating instructions code 24675.
(→ www.hawa.ch → HAWA-Productfinder)

Guides for sliding shutters up to 3200 mm (10'6") in height and 140 kg (308 lbs.) maximum weight.

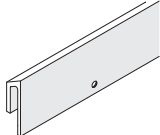
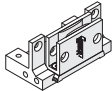
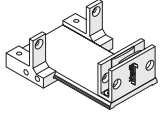

Description

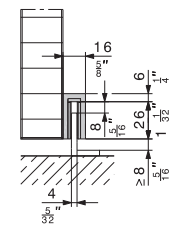
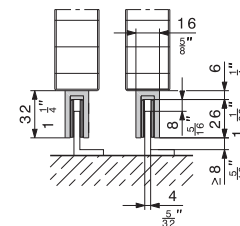
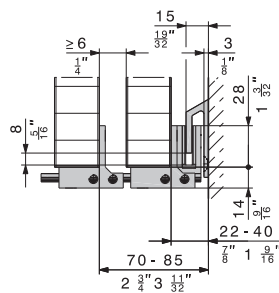
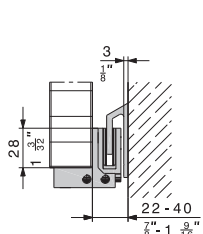
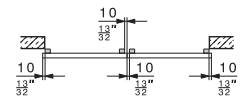
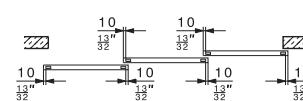
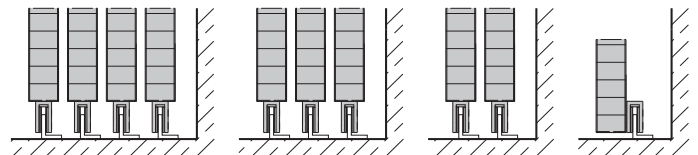
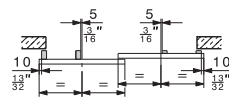
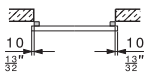
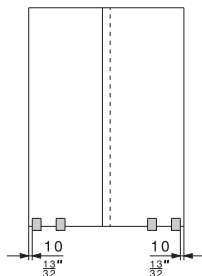
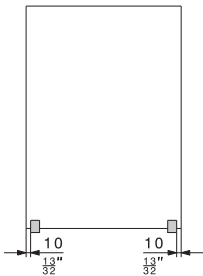
These guides are certified in accordance with the appropriate EU standard (wind resistance class 6) and can be used for a wide variety of applications. They are designed for sliding shutters up to 3200 mm (10'6") in height and a maximum weight of 140 kg (308 lbs.). Sliding shutter installations with 1 to 4 leaves, telescopic and symmetrical, manual or with a drive, can be easily realized with a minimal number of parts.

Commercially available, anodized aluminum bottom guide profiles can be used in combination with guide slider 24542.



Guides for HAWA-Frontslide

	mm/inch	code
	6000 (19'8 ⁷ / ₃₂ ")	24460
	cut to size	24462
		24543
		24544
		24542



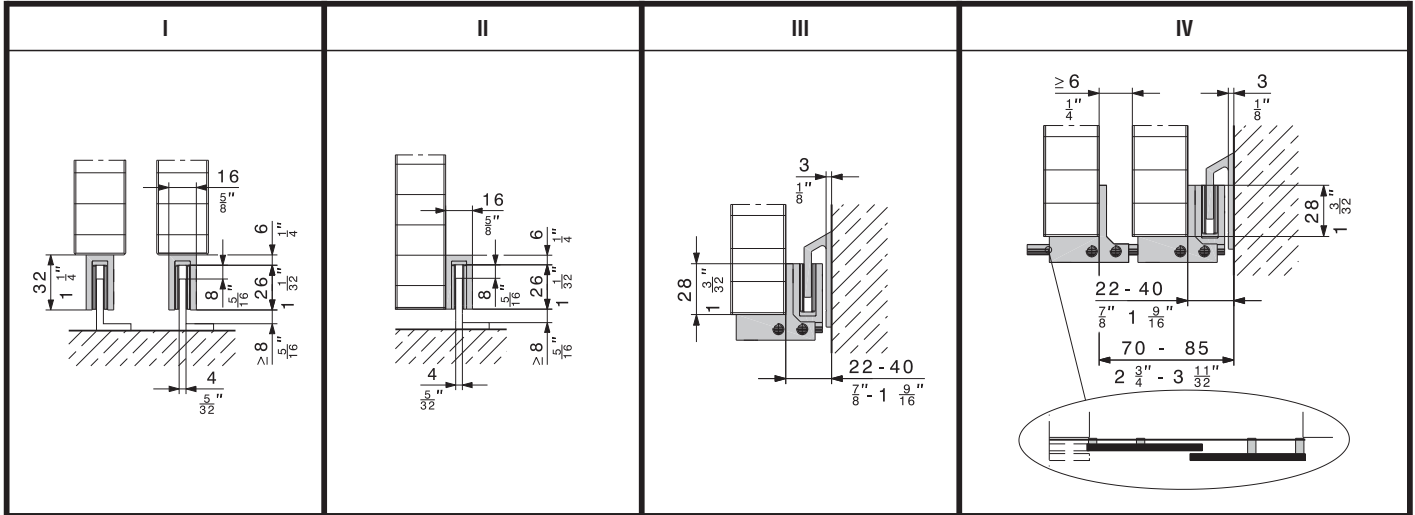
Floor guide 24543, bottom guide channels 24460/24462

Floor guides 24543/24544, bottom guide channels 24460/24462

Guide slider 24542 from Hawa and commercially available, anodized aluminum bottom guide profile.

Technische Änderungen vorbehalten.

Overview of the guides for HAWA-Frontslide



	I	II	III	IV
	✓	✓	✓	-
	✓	-	-	✓
	✓	-	-	-
	✓	-	-	-
	✓	✓	✓	-
	✓	-	-	✓
<p>Guide arrangements</p> <p>Certain guide options are freely adjustable. Further guide options available on request.</p>	<p>24542</p>	<p>24542</p>	<p>24543</p>	<p>24543/24544</p>
	<p>Alu profile anodized provided by others</p>	<p>Alu profile anodized provided by others</p>	<p>24460/24462</p>	<p>24460/24462</p>