

OVERVIEW OF RWA HARDWARE SYSTEMS																					
RWA hardware system	Rated voltage	Locking drive			Opening drives	Accessories			Casement dimensions						Required mounting space	Use			Location		
		Type	Number of VP	Length		Control modules Accessories	Frame bracket	Casement bracket	Bottom-/top-hung			Side-hung				Natural ventilation	RWA	NSHEV	Facade		Roof
									FAB	FAH	max. weight	FAB	FAH	max. weight					inward	outward	
[VDC]				[mm]	[A]			[mm]	[mm]	[Kg]	[mm]	[mm]	[Kg]	[mm]							
1000	24	FV3	1 (*1)	450	PL6	(B20-1)	K15	F11	500 - 1200	600 - 1500	50	600	500 - 2400	90	40	●	●	●	●	■	■
					PL10						90	- 1500		150		●	●	●	●	■	■
		OFV (*3)	(*2)	PL6	50	500	90	●	●	●	●	■	■								
				PL10	90	- 1500	150	●	●	●	●	■	■								
1000-TE	24	FV1	2; 3	1200	2x PL6	USKM	2x K15	2x F11	1250 - 2400	600 - 2000	90	600	1250 - 2400	130	40	●	●	●	●	■	■
					2x PL10						160			- 2400		200	●	●	●	●	■
			3	2000	2x PL6	90	- 1500	130	●	●	●	●	■	■							
					2x PL10	160	- 2400	200	●	●	●	●	■	■							
		OFV (*4)	(*2)	2x PL6	50	500	90	●	●	●	●	■	■								
				2x PL10	90	- 1500	150	●	●	●	●	■	■								
1100	24	FV3 (*3 *2)	1 (*1)	450	PL6	B21-1	K15 (K37)	F11	500 - 1200	800 - 1600	70	600	500 - 2400	90	40	●	●	●	■	●	■
					PL10						120	- 1500		150		●	●	●	■	●	■
1100-TE	24	FV1 (*4 *2)	2; 3	1200	2x PL6	USKM (B20-2)	2x K15 (2x K37)	2x F11	1250 - 2400	800 - 2000	130	600	1250 - 2400	130	40	●	●	●	■	●	■
					2x PL10						200			- 2400		200	●	●	●	■	●
		3	2000	2x PL6	130	- 1500	130	●	●	●	■	●	■								
				2x PL10	200	- 2400	200	●	●	●	■	●	■								
1050	24	FV3 (*3 *2)			PL6		K97 (re/li)	F11				550 - 1250	500 - 1500	90	22	●	●	●	●	■	■
					PL10									130		●	●	●	●	■	■
		OFV (*3)	(*2)	PL6	90	●	●	●	●	■	■										
				PL10	130	●	●	●	●	■	■										
1050-TE	24	FV1	(*1)		2x PL6	USKM	K97 re+li	2x F11				550 - 1500	500 - 2400	130	22	●	●	●	●	■	■
					2x PL10									150		●	●	●	●	■	■
		OFV (*4)	(*2)	2x PL6	130	●	●	●	●	■	■										
				2x PL10	150	●	●	●	●	■	■										

LEGEND

● suitable ■ not recommended

(*1 On the main closing edge of side-hung windows use of FV with 2 or 3 locking points (VP) is possible

(*2 Window specific multi-locking system

(*3 Use of FVR3 / FVB3 possible

(*4 Use of FVR4 / FVB4 possible



RWA 1000

- Model 24 V DC
- Application Bottom-/Top-/Side-hung inward opening windows
- Opening drives PL6 S1 (600 N) / PL10 S1 (1000 N)
on the side closing edge (NSK)
- Locking drives FV3 / OFV / FVR3 / FVB3 / (FV1 with USKM)
on the main closing edge (HSK)
- Frame brackets K15 (H = 150 mm), B20 für FV3 (FM)
- Casement brackets F11
- Version Opening drives SOLO / TE = Tandem (with USKM)
- Protection rating IP32



RWA 1100

- Model 24 V DC
- Application Bottom-/Top-/Side-hung outward opening windows
- Opening drives PL6 S1 (600 N) / PL10 S1 (1000 N)
on the side closing edge (NSK)
- Locking drives FV3 / FVR3 / (FV1 with USKM)
on the main closing edge (HSK)
- Frame brackets K15 (H = 150 mm) / K37 (H = 250 mm) / B20
- Casement brackets F11
- Version Opening drives SOLO / TE = Tandem (with USKM)
- Protection rating IP32



RWA 1050

- Model 24 V DC
- Application Side-hung inward opening windows
- Opening drives PL6 S1 (600 N) / PL10 S1 (1000 N)
on the side closing edge (NSK)
- Locking drives FV3 / OFV / (FV1 with USKM)
on the main closing edge (HSK)
- Frame brackets K97 right hand / left hand
- Casement brackets F11
- Version Opening drives SOLO / TE = Tandem (with USKM)
- Protection rating IP32

OVERVIEW OF SPINDLE DRIVES																	
Opening drives	Version		Stroke	Force		Speed		Stroke in	Cut-off current	Use			Location		Function		
	Cut-off switch	Rated voltage	up – to	Pulling force	Pushing force	OPEN	ZU	60 s	Max.	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control
		[VDC]	[mm]	[N]	[N]			[mm]	[A]								
PL6	S1	24	100–300	600	600	5,8	5,8	350	0,8	●	●	●	●		○		○
PL10	S1	24	100–300	1000	1000	2,6	2,6	150	0,8	●	●	●	●		○		○

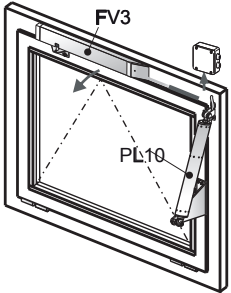
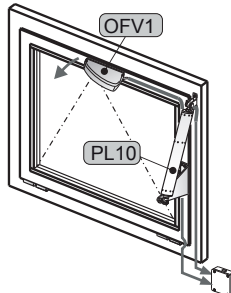
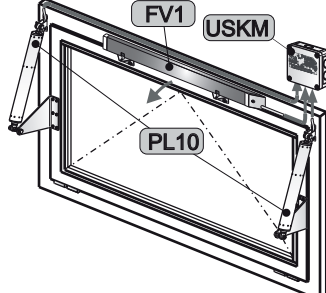
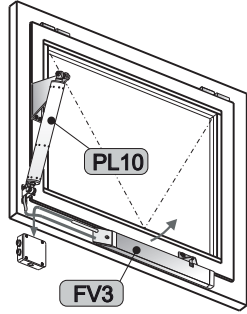
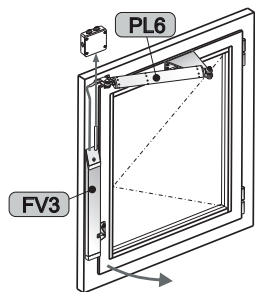
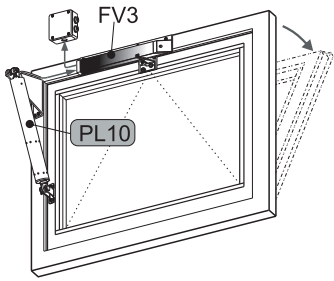
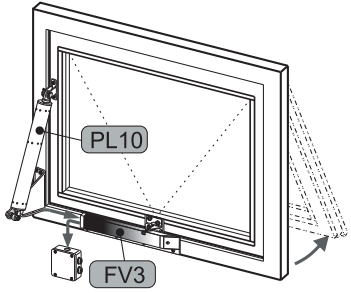
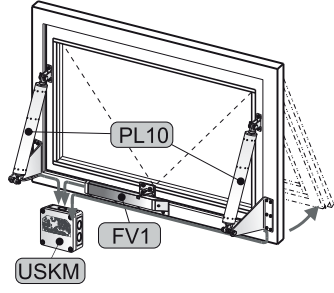
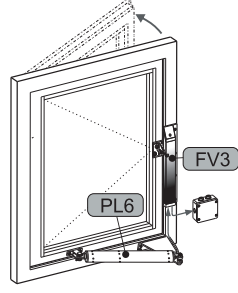
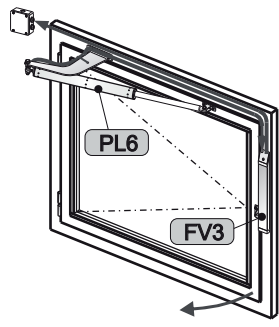
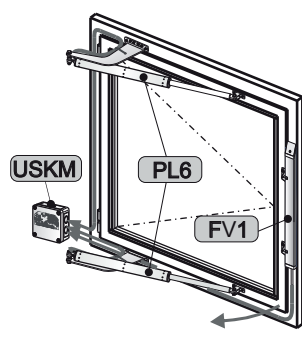
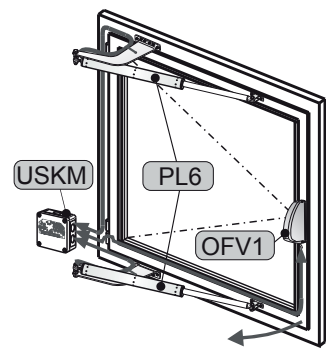
OVERVIEW OF LOCKING DRIVES																	
Locking drives	Locking stroke (Rotating angle)	Rated voltage	Force (Torque)		Runtime	Close circuit current	Opening drives		Use			Location		Functions			
			Pulling/Pushing force	Initial force (torque)			Model	Cut-off current	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control	
	[mm]	[VDC]	[N]	[N]	[s]	[A]		[A]									
FV1		24	600	1000	5,0	0,3	○	○	●	●	●	●					○
FV3		24	600	1000	5,0	0,3	S1	0,8	●	●	●	●					●
FVR3	18	24	600	1000	5,0	0,3	S1	0,8	●	●	●	●					●
FVB3	16/22	24	600	1000	5,0	0,3	S1	0,8	●	●	●	●					●
OFV	90° – 180°	24	10 Nm	22 Nm	4,5/9,0	0,3	S1	0,9–3,0	●	●	●	●					●

LEGEND

● suitable ■ not recommended

S1 without internal cut-off switch for operation with RWA1000-, RWA1100-, RWA1050-systems

○ only with external cut-off switch or control module USKM

TYPICAL APPLICATION		
<p>RWA1000 – inward opening</p>  <p>View on bottom-hung window</p>	<p>RWA1000 – inward opening</p>  <p>View on bottom-hung window</p>	<p>RWA1000 TE – inward opening</p>  <p>View on bottom-hung window</p>
<p>RWA1000 – inward opening</p>  <p>View on top-hung window</p>	<p>RWA1000 – inward opening</p>  <p>View on side-hung window</p>	<p>RWA1100 – outward opening</p>  <p>View on bottom-hung window</p>
<p>RWA1100 – outward opening</p>  <p>View on top-hung window</p>	<p>RWA1100 TE – outward opening</p>  <p>View on top-hung window</p>	<p>RWA1100 – outward opening</p>  <p>View on side-hung window</p>
<p>RWA1050 – inward opening</p>  <p>View on side-hung window</p>	<p>RWA1050 TE – inward opening</p>  <p>View on side-hung window</p>	<p>RWA1050 TE – inward opening</p>  <p>View on side-hung window</p>



SPECIAL FEATURES RWA1050

- For natural ventilation, smoke and heat exhausting and ferralux® NSHEV (EN12101-2)
- Suitable for inward opening side-hung windows
- Opening angles of 90° realized with short strokes and opening times due to the mounting of the spindle drives at an acute angle to the side closing edge and due to the displacement of the pivoted point of the frame bracket behind the mullion/transom construction
- Required space of only 22 mm for the mounting of the frame bracket on the side closing edge of the window frame profile
- Other combinations of various spindle drives in SOLO or TANDEM arrangements with locking actuators for actuating of window profile-specific hardware systems on request

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804. The LCA results of the different product types are listed at the end of this product catalogue. The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.

MOUNTING DIMENSION OF RWA1050 FOR SIDE-HUNG INWARD OPENING WINDOWS																		
hardware set	Frame bracket	Stroke of the opening drive	CASEMENT CLOSED				Mounting dimension „X“	min. FAB (NSK) (side closing edge)	Opening angle	Opening width	CASEMENT OPEN			Weight of the casement (max.)		Required space on the frame		FAH (HSK)
			Angle of the drive force application	Applied force at the drive fixing point		Angle of the drive force application					Applied force at the drive fixing point		PL6	PL10	Hinge	NSK		
				[DEG]	PL6						PL10	[N]					[N]	
RWA 1050 (*1)	K97	100	19	167	279	0	510	35	(*2)	16	163	272	90	130	10	22	500 – 1500	
		150	13	139	232	20	600	55		11	112	187	90	130	30	22		
		200	11	119	198	40	680	75		6	60	100	90	130	50	22		
		250	10	103	172	80	740	85		6	60	100	90	130	90	22		

(*1 For the tandem sets RWA1100TE the drive forces and the max. window weights will be correspondingly higher.
 (*2 Depends on FAB