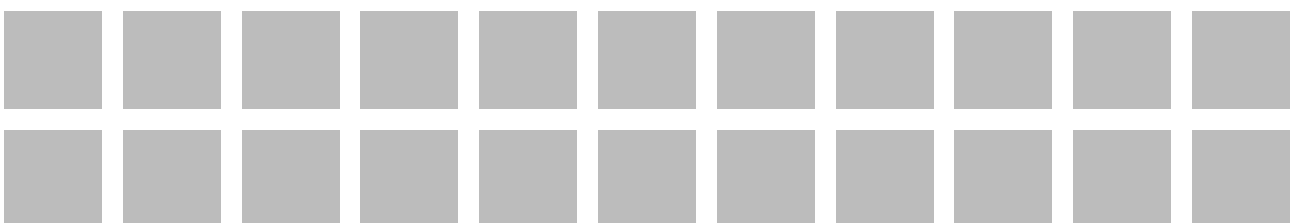


# 7

## Hardware sets





**RWA 1000**

### RWA 1000

- Model 24V DC
- Application Bottom-hung / Top-hung / 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 K15 (H = 150 mm), B20 für FV3 (FM)
- Casement brackets F11
- Version Opening drives Solo / TE = Tandem (with USKM)
- Protection rating IP32



**RWA 1100**

### RWA 1100

- Model 24V DC
- Application Bottom-hung / Top-hung / Side-hung outward opening windows
- Opening drives PL6 S1 (600 N) / PL10 S1 (1000 N) on the side closing edge (NSK)
- Locking drives FV3 / (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**

### RWA 1050

- Model 24V 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

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	NRWG	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	(*2)	PL6	K15	F11	500 - 1200	600 - 1500	50	500	500 - 2400	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	USKM	2x K15	2x F11	2050 - 2400	600 - 2000	90	600	2050 - 2400	130		●	●	●	●	■	■
					2x PL10						160			2400		200	●	●	●	●	■
		OFV	(*2)	2x PL6	USKM	2x K15	2x F11	500 - 1200	600 - 1500	50	500	500 - 2400	90	●		●	●	●	■	■	
				2x PL10						90			1500	150		●	●	●	●	■	■
1100	24	FV3 (*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 (*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	USKM (B20-3)	2x K15 (2x K37)	2x F11	2050 - 2400	800 - 2000	130	600	2050 - 2400	130		●	●	●	■	●	■
					2x PL10						200			2400		200	●	●	●	■	●
1050	24	FV3 (*2)	1 (*1)	450	PL6	K97 (re/li)	F11	500 - 1200	500 - 1500	500 - 2400	90	550	500 - 2400	90	22	●	●	●	●	■	■
					PL10						130			1500		130	●	●	●	●	■
		OFV	(*2)	PL6	K97 (re/li)	F11	500 - 1200	500 - 1500	500 - 2400	90	550	500 - 2400	90	●		●	●	●	■	■	
				PL10						130			1500	130		●	●	●	●	■	■
1050-TE	24	FV1	(*1)	450	2x PL6	USKM	K97 R+L	2x F11	500 - 1200	500 - 1500	500 - 2400	130	550	500 - 2400	22	●	●	●	●	■	■
					2x PL10							150				1500	150	●	●	●	●
		OFV	(*2)	2x PL6	USKM	K97 R+L	2x F11	500 - 1200	500 - 1500	500 - 2400	130	550	500 - 2400	130		●	●	●	●	■	■
				2x PL10							150			1500		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

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	RWA	NRWG	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	●	●	●	●		○		○

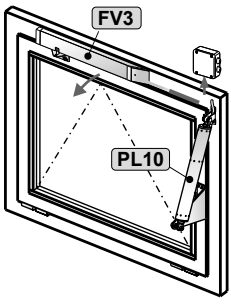
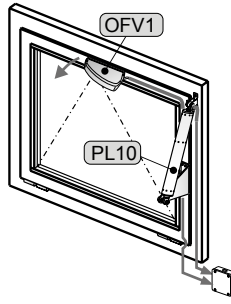
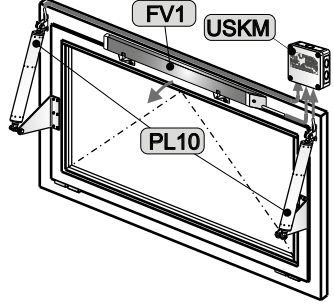
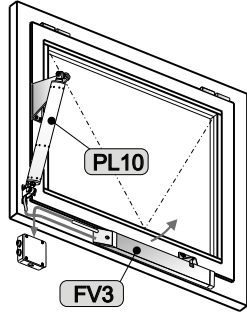
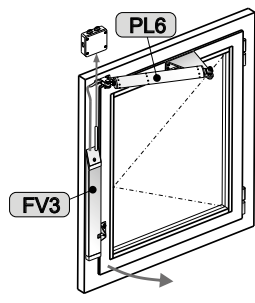
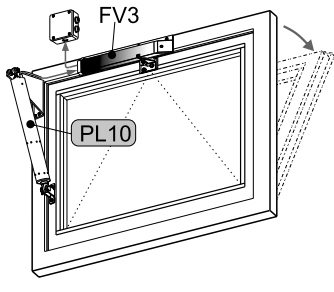
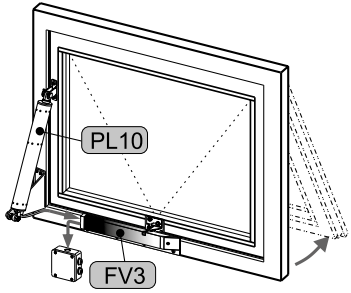
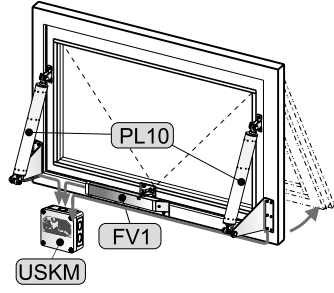
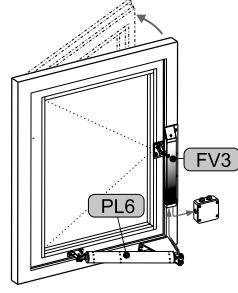
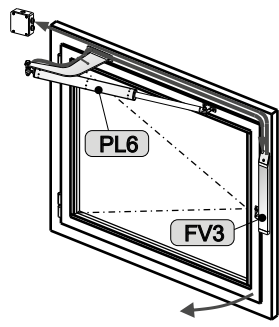
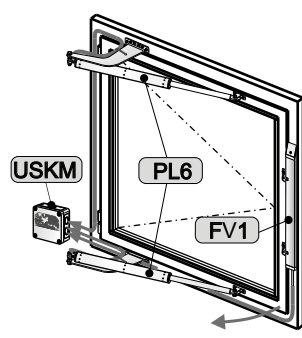
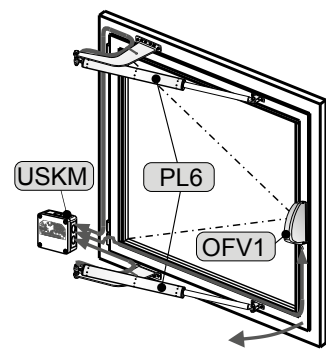
OVERVIEW OF LOCKING DRIVES																	
Locking drives	Locking stroke (Rotating angle)	Rated voltage	Force (Torque)		Runtime	Close circuit current	Opening drives		Use			Location		Functions			
			Pulling/Pushing force	Initial force (torque)			Model	Cut-off current	Natural ventilation	RWA	NRWG	Facade	Roof	Run monitoring	Synchronised run	Sequence control	
	[mm]	[VDC]	[N]	[Nm]	[s]	[A]		[A]									
FV1		24	600	1000	5,0	0,3		○	●	●	●	●					○
FV3		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>