

# TECHNICAL SPECIFICATION

## FPP-V preSelect, FPU-V preSelect WOODEN TOP HUNG AND PIVOT ROOF WINDOWS



WINDOW TYPE	FPP-V preSelect	FPU-V preSelect
<b>I. APPLICATION</b>		
Installation	Installation angle 15°-55° (window special version: 55°-85°) universal installation system on rafters and battens	
<b>II. FEATURES</b>		
Material	pinewood, vacuum impregnated	
Lacquer	acrylic natural colour	polyurethane white NCS S0502-Y
Varnishing	twice	triple
Air inlet type	automatic V4OP	
Air inlet capacity	up to 49m³/h	
System	top Safe	
Seals	four	
Micro-opening facility	+	
Handle	Elegant	
Warranty	10 years for windows, 20 years for glazing unit	
<b>III. TECHNICAL PARAMETERS</b>		
Air permeability class	4 as per EN 12207	
Wind load resistance	class C5/B5** as per EN 12210	
Watertightness – unshielded (A)	E900 as per EN 12208	
Impact resistance	class 3 (450mm) as per EN 13049	
Applicability of glazing units	U3, U5, P5, R1, P2, G2, G61	

WINDOW TYPE	FPP-V preSelect	FPU-V preSelect
<b>IV. OPTIONS</b>		
Wooden profiles for FPP-V	- painted in colours of RAL spectrum - painted in one of five Lazure colours - in mahogany woodwork	
Cladding	- painted in colours of RAL spectrum - cladding elements made of different types of sheet metal (CU, TC) - window with extended installation range 55-85° - window with black mullion bar and cladding - window without air inlet	
<b>V. ADDITIONAL PRODUCTS TO BE USED</b>		
Flashings	- standard, - special, - combination	
Control	- manual - electric	
Mounting accessories	- insulation sets - linings - auxiliary rafters - insulating band - frame extensions	
External accessories	- awning blind - roller shutter	
Internal accessories	- ARF blackout blind - ARP roller blind - ARS standard roller blind - AJP venetian blind - APS pleated blind - APF pleated blind - AMS insect screen	

VI. TECHNICAL PARAMETERS FOR WINDOWS IN PARTICULAR SIZES												
frame external size [cm]	55x98	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98
window size symbol	02	03	04	05	06	07	13	08	09	10	11	12
window internal area [m²]	0.41	0.51	0.62	0.62	0.75	0.91	1.04	0.93	1.12	1.15	1.38	1.11
effective glazing area [m²]	0.29	0.38	0.47	0.47	0.59	0.73	0.85	0.75	0.92	0.95	1.16	0.92
window weight for U3 glazing unit [kg]±1kg	27	30	35	35	39	43	49	44	50	51	58	48
air inlet capacity at a pressure difference of 10Pa [m³/h]	17.28	23.34	23.34	27.89	27.89	27.89	27.89	27.89	27.89	49.08	49.08	49.08

VII. TECHNICAL PARAMETERS FOR WINDOWS WITH PARTICULAR GLAZING UNIT TYPES							
Technical parameters	Glazing unit type						
	U3	U5	P5	R1	P2	G2	G61
Glazing structure	4H-16-4T	4HT-10-4H-10-4HT	4HS-10-4HT-8-33.2T	6H-12-33.2SRT	4H-15-33.2T	4HT-15-33.1T	6HT-12-33.2SR
glazing U-value as per EN 673	1.0 W/m²K	0.5 W/m²K	0.5 W/m²K	1.0 W/m²K	1.0 W/m²K	1.0 W/m²K	1.0 W/m²K
window U-value as per EN ISO 12567-2	1.3 W/m²K	0.97 W/m²K	0.97 W/m²K	1.3 W/m²K	1.3 W/m²K	1.3 W/m²K	1.3 W/m²K
acoustic insulation Rw (the window with air inlet) as per EN ISO 717-1	32(-1;-5)	33(-2;-6)	35(-2;-4)	36(-2;-3)	35(-1;-3)	35(-1;-3)	36(-2;-3)
acoustic insulation Rw (the window without air inlet) as per EN ISO 717-1	33(-1;-5)	33(-1;-5)	37(-2;-5)	39(-2;-5)	36(-1;-4)	36(-1;-4)	39(-2;-5)
light transmittance factor τ <sub>v</sub> as per EN 410	0.76	0.73	0.68	0.75	0.75	0.40	0.40
solar factor g as per EN 410	0.53	0.53	0.48	0.51	0.52	0.24	0.23
UV radiation as per EN 410	0.26	0.28	0.01	0.01	0.01	0.01	0.01
frame thermal insulation Uf* as per EN ISO 10077-1. EN ISO 10077-2	1.79 W/m²K	1.93 W/m²K	1.87 W/m²K	1.78 W/m²K	1.79 W/m²K	1.79 W/m²K	1.68 W/m²K
thermal insulation of frame and glazing connection Ψ** as per EN ISO 10077-1. EN ISO 10077-2	0.064 W/mK	0.059 W/mK	0.068 W/mK	0.078 W/mK	0.070 W/mK	0.070 W/mK	0.078 W/mK

\* FAKRO internal test results  
\*\* for the window width > 114 cm and height > 140 cm: npd  
npd – no performance determined




# TECHNICAL SPECIFICATION

## PPP-V preSelect

ALUMINIUM CLAD-PLASTIC TOP HUNG AND PIVOT ROOF WINDOWS



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WINDOW TYPE	PPP-V preSelect
	
<b>I. APPLICATION</b>	
Installation	Installation angle 15°-55° (window special version: 55°-85°) universal installation system
<b>II. FEATURES</b>	
Material	multi-chamber PVC profiles
Colour	white (RAL 9010)
Varnishing	-
Air inlet type	V35
Air inlet capacity	up to 41m <sup>3</sup> /h
System	top Safe
Seals	four
Micro-opening facility	+
Handle	Elegant white
Warranty	10 years for windows, 20 years for glazing unit
<b>III. TECHNICAL PARAMETERS</b>	
Air permeability class	3 as per EN 12207
Wind load resistance	Class C4** as per EN 12210
Watertightness – unshielded (A)	E900 as per EN 12208
Impact resistance	class 3 (450mm) as per EN 13049
External fire resistance	class Broof (t1) as per EN 13501-5+A1
Applicability of glazing units	U3, P5, U5, R1, P2, G61

WINDOW TYPE	PPP-V preSelect
<b>IV. OPTIONS</b>	
Wooden profiles	- available in veneer colours: - golden oak (GO) - pinewood (PI)
Cladding	- painted in colours of RAL spectrum - cladding elements made of different types of sheet metal (CU, TC) - window with extended installation range 55-85° - window with black mullion bar and cladding - window without air inlet
<b>V. ADDITIONAL PRODUCTS TO BE USED</b>	
Flashings	- standard, - special, - combination
Control	- manual - electric
Mounting accessories	- insulation sets - linings - auxiliary rafters - insulating band - frame extensions
External accessories	- awning blind - roller shutter
Internal accessories	- ARF blackout blind - ARP roller blind - ARS standard roller blind - AJP venetian blind - APS pleated blind - APF pleated blind - AMS insect screen

VI. TECHNICAL PARAMETERS FOR WINDOWS IN PARTICULAR SIZES								
frame external size [cm]	55x98	66x98	66x118	78x98	78x118	78x140	94x118	94x140
window size symbol	02	03	04	05	06	07	08	09
window internal area [m <sup>2</sup> ]	0.41	0.51	0.62	0.62	0.75	0.91	0.93	1.12
effective glazing area [m <sup>2</sup> ]	0.29	0.38	0.47	0.47	0.59	0.73	0.75	0.92
window weight for U3 glazing unit [kg]±1kg	30	33	39	37	42	49	49	55
air inlet capacity at a pressure difference of 10Pa [m <sup>3</sup> /h]	15.05	20.59	20.59	25.32	25.32	25.32	27.55	27.55

VII. TECHNICAL PARAMETERS FOR WINDOWS WITH PARTICULAR GLAZING UNIT TYPES							
Technical parameters	Glazing unit type						
	U3	U5	P5	R1	P2	G2	G61
Glazing structure	4H-16-4T	4HT-10-4H-10-4HT	4HS-10-4HT-8-33.2T	6H-12-33.2SRT	4H-15-33.2T	4HT-15-33.1T	6HT-12-33.2 SR
glazing U-value as per EN 673	1.0 W/m <sup>2</sup> K	0.5 W/m <sup>2</sup> K	0.5 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K
window U-value as per EN ISO 12567-2, EN ISO 10077-1	1.3 W/m <sup>2</sup> K	1.1 W/m <sup>2</sup> K	1.1 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K
acoustic insulation Rw (the window with air inlet) as per EN ISO 717-1	32(-1;-4)	34(-2;-6)	36(-1;-3)	37 (-1;-4)	33(-1;-4)	33(-1;-4)	37(-1;-4)
acoustic insulation Rw (the window without air inlet) as per EN ISO 717-1	34(-2;-5)	34(-2;-5)	38(-1;-4)	39 (-2;-5)	36(-1;-4)	36(-1;-4)	39 (-2;-5)
light transmittance factor τ <sub>v</sub> as per EN 410	0.76	0.73	0.68	0.75	0.75	0.40	0.40
solar factor g as per EN 410	0.53	0.53	0.48	0.51	0.52	0.24	0.23
UV radiation as per EN 410	0.26	0.28	0.01	0.01	0.01	0.01	0.01
frame thermal insulation Uf* as per EN ISO 10077-1, EN ISO 10077-2	npd	npd	npd	npd	npd	npd	npd
thermal insulation of frame and glazing connection Ψ** as per EN ISO 10077-1, EN ISO 10077-2	npd	npd	npd	npd	npd	npd	npd

\* FAKRO internal test results  
\*\* for the window width > 114 cm and height > 140 cm: npd  
npd – no performance determined




# TECHNICAL SPECIFICATION

## FEP

WOODEN PANORAMIC TOP HUNG AND PIVOT ROOF WINDOWS




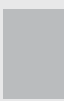
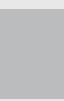
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WINDOW TYPE	FEP
	
<b>I. APPLICATION</b>	
Installation	installation angle 15°-55° universal installation system
<b>II. CECHY</b>	
Material	pinewood, vacuum impregnated
Lacquer	acrylic natural colour
Varnishing	twice
Air inlet type	–
System	top Safe
Seals	three
Micro-opening facility	+
Handle	Elegant
Warranty	10 years for windows, 20 years for glazing unit
<b>III. TECHNICAL PARAMETERS</b>	
Air permeability class	class 4 as per EN 12207
Wind load resistance	class C3* as per EN 12210
Watertightness – unshielded (A)	E750 as per EN 12208
Impact resistance	class 3 (450mm) as per EN 13049
Applicability of glazing units	U3, P2

WINDOW TYPE	FEP
<b>IV. OPTIONS</b>	
Wooden profiles	- painted in colours of RAL spectrum - painted in one of five Lazure colours - coated with polyurethane lacquer (white) - in mahogany woodwork
Cladding	- painted in colours of RAL spectrum - cladding elements made of different types of sheet metal (CU, TC) - window with black mullion bar and cladding
<b>V. ADDITIONAL PRODUCTS TO BE USED</b>	
Flashings	- standard, - special, - combination
Control	- manual - electric
Mounting accessories	- insulation sets - linings - auxiliary rafters - insulating band - frame extensions
External accessories	- awning blind - roller shutter
Internal accessories	- ARF blackout blind - ARP roller blind - ARS standard roller blind - AJP venetian blind - APS pleated blind - APF pleated blind - AMS insect screen

VII. TECHNICAL PARAMETERS FOR WINDOWS WITH PARTICULAR GLAZING UNIT TYPES		
Technical parameters	Glazing unit type	
	U3	P2**
Glazing structure	4H-16-4T	4H-15-33.2T
glazing U-value as per EN 673	1.0 W/m²K	1.0 W/m²K
window U-value window U-value (installed with E_V-AT Thermo flashing) as per EN ISO 12567-2, EN ISO 10077-1	1.4 W/m²K	1.4 W/m²K 1.2 W/m²K
acoustic insulation Rw as per EN ISO 717-1	32(-2;-5)	35(-1;-3)
light transmittance factor τ <sub>v</sub> as per EN 410	0.76	0.75
solar factor g as per EN 410	0.53	0.52
UV radiation as per EN 410	0.26	0.01
frame thermal insulation U <sub>f</sub> U <sub>f</sub> * when the window is installed with E_V-AT Thermo as per EN ISO 10077-1, EN ISO 10077-2	npd	npd 1.19 W/m²K
thermal insulation of frame and glazing connection Ψ Ψ* when the window is installed with E_V-AT Thermo as per EN ISO 10077-1, EN ISO 10077-2	npd	npd 0.058 W/mK

\* for the window width > 114 cm and height > 140 cm: npd  
\*\* applies to FEP windows  
npd – no performance determined

VI. TECHNICAL PARAMETERS FOR WINDOWS IN PARTICULAR SIZES			
frame external size [cm]	78x140	94x140	114x140
window size symbol	<b>07</b>	<b>09</b>	<b>11</b>
			
window internal area [m²]	0.91	1.12	1.38
effective glazing area [m²]	0.73	0.92	1.16
window weight for U3 glazing unit [kg]±1kg	44	50	56
window weight for P2 glazing unit [kg]±1kg	48	56	62

