

FSR, FSR/U, FSR/W

Pivot window equipped with smoke ventilation system



I. APPLICATION

	Pivot window equipped with smoke ventilation system
	Suitable for pitches from 15-90°

II. FEATURES

	Pinewood, natural colour (FSR), white NCS S0502-Y polyurethane (FSR/U), or white acrylic (FSR/W)
	Special actuator opening the sash up to an angle of 90°
	Double sealing system
	Universal installation system
	Steel spacer

III. ADDITIONAL PRODUCTS TO BE USED WITH WINDOWS

	Flashings standard special combination
	Control electrically operated by control panel (not included in set)
	Mounting accessories insulation sets linings auxiliary rafters bands frame extensions

IV. OPTIONS

	Wooden profiles painted in any RAL colour or in one of five azure colours
	External cladding elements painted in any RAL colour or manufactured to match even the most unusual roofing colours (CU, TC)
	Window with a mullion bar

DECLARATION OF PERFORMANCE

Harmonized standard	EN 12101-2:2003
Number of Declaration of Performance	R40/CPR/12101/17

VI. TECHNICAL PARAMETERS

Characteristics	Performance of the product																Harmonized technical specification		
	Window size [cm]	FSR, FSR/U, FSR/W																	
		78x78	78x98	78x118	78x140	94x78	94x98	94x118	94x140	94x160	114x78	114x98	114x118	114x140	134x78	134x98		134x118	134x140
1 Active surface	A _v [m ²] (1)	0,29	0,38	0,47	0,58	0,35	0,46	0,58	0,70	0,80	0,44	0,57	0,71	0,86	0,52	0,68	0,84	1,01	6
2 Wind load resistance		WL 3000															7.4.1		
3 Snow load resistance	15°	SL2007	SL1944	SL1877	SL1804	SL1686	SL1645	SL1598	SL1546	SL1500	SL1850	SL1816	SL1775	SL1727	SL1586	SL1563	SL1534	SL1500	7.2.1.1
	20°	SL2063	SL1998	SL1929	SL1854	SL1733	SL1691	SL1643	SL1590	SL1542	SL1901	SL1866	SL1824	SL1775	SL1630	SL1607	SL1577	SL1542	
	25°	SL2139	SL2072	SL2000	SL1922	SL1797	SL1753	SL1703	SL1648	SL1599	SL1971	SL1935	SL1891	SL1841	SL1690	SL1666	SL1635	SL1599	
	30°	SL2238	SL2168	SL2093	SL2012	SL1880	SL1834	SL1783	SL1725	SL1673	SL2063	SL2025	SL1979	SL1926	SL1768	SL1743	SL1711	SL1673	
	35°	SL2366	SL2292	SL2213	SL2127	SL1988	SL1939	SL1884	SL1823	SL1768	SL2181	SL2140	SL2092	SL2036	SL1870	SL1843	SL1809	SL1768	
40°	SL2530	SL2451	SL2366	SL2274	SL2126	SL2073	SL2015	SL1949	SL1891	SL2332	SL2289	SL2237	SL2177	SL1999	SL1971	SL1934	SL1891		
45°	SL2741	SL2655	SL2563	SL2463	SL2303	SL2246	SL2183	SL2112	SL2048	SL2526	SL2479	SL2423	SL2358	SL2165	SL2135	SL2095	SL2048		
4 Low ambient temperature		T (-15)															7.3.1		
5 Reliability		RE 1000															7.1.1		
6 Resistance to high temperature		B 300															7.5.1		
7 Reaction to fire		F															7.5.2.1		

(1) as per EN 12101-2, attachment B, section B.2.4.2.2

FSR smoke hatch parameters

Size/ symbol of FSR hatch	VVV - SL values depending on the FSR smoke hatch size	ZZZ - value of the active smoke area A _a [m ²] depending on the FSR smoke hatch size. Value only for 90 degree installation angle.	XXX - Geometric values for the smoke surface A _v [m ²] depending on the size of the FSR smoke hatch.
78x78 (23)	2007	0,29	0,50
78x98 (05)	1944	0,38	0,64
78x118 (06)	1877	0,47	0,78
78x140 (07)	1804	0,58	0,93
94x78 (24)	1686	0,35	0,61
94x98 (15)	1645	0,46	0,78
94x118 (08)	1598	0,58	0,96
94x140 (09)	1546	0,70	1,14
94x160 (80)	1500	0,80	1,32
114x78 (25)	1850	0,44	0,75
114x98 (20)	1816	0,57	0,97
114x118 (10)	1775	0,71	1,17
114x140 (11)	1727	0,86	1,41
134x78 (26)	1586	0,52	0,90
134x98 (12)	1563	0,68	1,15
134x118 (18)	1534	0,84	1,40
134x140 (17)	1500	1,01	1,68

*The smoke hatch does not require the U_w value specification, therefore the heat transfer coefficient is not given in the declaration of performance.

VII. DETAILED DIMENSIONS OF PIVOT WINDOWS FSR, FSR/U, FSR/W

Window size	Size Symbol	Frame external size		Distance between lining grooves		Glazing area		Visible glazing area
		S	x L	p	q	j	k	j * k
[cm]		[mm]						[m ²]
78 x 78	23	777	x 781	715	724	599	591	0,35
78 x 98	05	777	x 981	715	924	599	791	0,47
78 x 118	06	777	x 1181	715	1124	599	991	0,59
78 x 140	07	777	x 1401	715	1344	599	1211	0,73
94 x 78	24	937	x 781	875	724	759	591	0,45
94 x 98	15	937	x 981	875	924	759	791	0,60
94 x 118	08	937	x 1181	875	1124	759	991	0,75
94 x 140	09	937	x 1401	875	1344	759	1211	0,92
94 x 160	80	937	x 1601	875	1544	759	1411	1,07
114 x 78	25	1137	x 781	1075	724	959	591	0,57
114 x 98	20	1137	x 981	1075	924	959	791	0,76
114 x 118	10	1137	x 1181	1075	1124	959	991	0,95
114 x 140	11	1137	x 1401	1075	1344	959	1211	1,16
134 x 78	26	1337	x 781	1275	724	1159	591	0,68
134 x 98	12	1337	x 981	1275	924	1159	791	0,92
134 x 118	18	1337	x 1181	1275	1124	1159	991	1,15
134 x 140	17	1337	x 1401	1275	1344	1159	1211	1,40

