

AIRMAX FOR CURTAIN WALLING & STAND ALONE WINDOW SOLUTIONS







AIRMAX is Reynaers highly innovative Parallel Opening Window (POW), which is available as a traditional window as well as contained within Reynaers existing curtain wall.

The stand alone Parallel Opening Window is part of Reynaers existing CS77 system, whilst the curtain wall POW can be integrated into all of Reynaers curtain wall systems, giving greater freedom of design and functionality.

When open, AIRMAX allows air to penetrate around its entire perimeter, facilitating highly efficient ventilation and increasing air flow by almost double, in comparison to a traditional top hung window. This in turn creates less draught within the room as the open space is more evenly distributed around the frame. This process was demonstrated by Arup's recent study which looked at the benefits of using a parallel opening window system, as opposed to the traditional top hung window system (figures available on request).

AIRMAX STAND ALONE WINDOW SOLUTION

Airmax benefits from optimised safety and security due to the parallel opening being restricted to 100 mm, significantly increasing the security of the building.

Furthermore, the system offers an aesthetic benefit as the angle of the glass remains the same whether the windows are open or closed. It provides maximum light entrance into the building and is available in a range of styles. Airmax also offers technical solutions for the different performance requirements of a façade such as insulation and weather performances.

TECHNICAL CHARACTERISTICS

Style variants	CS77 POW						
Min. visible width outward opening window							
Frame	13 mm						
Vent	89 mm						
Max. vent size							
Vent height	2000 mm (*)						
Vent width	2000 mm (*)						
Min. visible width T-profile	76 mm						
Overall system depth window							
Frame	68 mm						
Vent	77 mm						
Rebate height	25 mm						
Glass thickness	up to 53 mm						
Glazing method	Dry glazing with EPDM or neutral silicones						
Thermal insulation	Omega-ribbed and/or hollowchamber-shaped fibreglass reinforced polyamide strips						

ENERGY

Thermal insulation (1) EN 100772	Uw value can be as low as 1.2 W/m²K depending on the application $^{\scriptscriptstyle (6)}$													
COMFORT														
Acoustic performance ⁽²⁾ EN ISO 140-3; EN ISO 717-1	Rw (C; Ctr) = 36 (-1; -4) dB / 42 (-2; -4) dB, depending on glazing type													
Air tightness, max. test pressure ⁽³⁾ EN 1026; EN 12207	(1 150 Pa)		2 (300 Pa)			(4 (600 Pa)					
Water tightness ⁽⁴⁾ EN 1027; EN 12203	1A (0 Pa)	2A (50 Pa)	3. (100	A Pa)	4A 5A (150 Pa) (200 Pa)		5A (200 Pa)	6A (250 Pa)	7 A (300 Pa)	87 (450	A Pa)	E75 (750	O Pa)	E (900 Pa)
Wind load resistance, max. test pressure ⁽⁵⁾ EN 12211; EN 12210	1 (400	l 2) Pa) (800 Pa)			3 (1200 Pa)		4 (1600 Pa)		5 (2000 Pa)			Exxx (>2000 Pa)		
Wind load resistance to frame deflection ⁽⁵⁾ EN 12211; EN 12210	A (≤ 1/150)				B (\$ 1/200)				C (≤1/300)					
SAFETY	BS 7950: 1997 (windows) has been tested to UK standards													

This table shows possible classes and values of performances. The values indicated in red are the ones relevant to the CS77 POW system.

- The Uw value measures the heat flow. The lower the Uw value, the better the thermal insulation.
 The sound reduction index (Rw) measures the capacity of the sound reduction performance of the frame.
 The air tightness test measures the volume of air that would pass through a closed window at a certain air pressure.
- (4) The water tightness testing involves applying a uniform water spray at increasing air pressure until water penetrates the window.
 (5) The wind load resistance is a measure of the profile's structural strength and is tested by applying increasing levels of air pressure to simulate the wind force. There are up to five levels of wind resistance (1 to 5) and three deflection classes (A,B,C). The higher the number, the better the performance.
- (6) Based on high specification glass and improved spacer on a vent size of 2300 mm x 3000 mm. Air and water performance subject to testing.

Please refer to Reynaers Technical Department for calculation details.

AIRMAX CURTAIN WALL SOLUTIONS

TECHNICAL CHARACTERISTICS

Style variants	CW50 / CW60 POW BONDED VENT	CW50 / CW60 POW BEADED VENT	CW86 BONDED VENT	CW86 BEADED VENT			
Min. visible width outward opening window							
Frame	Not visible	Not visible	Not visible	Not visible			
Vent	Not visible	35 mm	Not visible	35 mm			
Max. vent size							
Vent height	Up to 2400 mm (*)	Up to 2400 mm (*)	Up to 2400 mm (*)	Up to 2400 mm (*)			
Vent width	Up to 1500 mm (*)	Up to 1500 mm (*)	Up to 1500 mm (*)	Up to 1500 mm (*)			
Overall system depth window							
Frame	Varies depending on	Dependent on overall vent size	Varies depending on	Dependent on overall vent size			
Vent	glass thickness		glass thickness				
Rebate height	Not applicable	35 mm	Not applicable	35 mm			
Glass thickness	27 mm-40 mm	24 mm-30 mm	26 mm-36 mm	6 mm-38 mm			
Glazing method	Dry glazing with EPDM or neutral silicones						
Thermal insulation	Glazed into thermally enhanced curtain walling						

(*) Vents over 1200 mm wide require motorised operation. Please check with Reynaers Technical Department in Birmingham for further advice.

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