

The proposed glass configuration optimizes the thermal comfort conditions inside the building, considering its location (London) and needs provided, following scheme shows the glass configuration:

	6mm Low Iron Tempered Glass 0,76mm PVB Foil 3mm a-Si Thin Film Solar Cells 0,76mm PVB Foil 6mm Tempered Glass 12mm Air Chamber
_	5mm Tempered Glass 5mm Tempered Glass
	Total thickness: 38.5 mm











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Following table shows the glass electrical, mechanical and thermal and acoustic isolation characteristics:

BIPV 20% transparency					
STC Electrical Characteristics					
Nominal power (-/+3 %)	P _{mpp} (Wp)	120			
Voltage at Pmax	V _{mpp} (V)	180			
Current at Pmax	I _{mpp} (A)	0.68			
Open Circuit Voltage	V _{oc} (V)	238			
Short Circuit Current	I _{sc} (A)	0.79			
Density	Wp/m²	46			
Power tolerance	%	±5			
STC: 1000 W/m², 25ºC, AM 1.5					
Temperature Characteristics					
Temperature Coefficient of I _{sc}	%/ºC	0.06			
Temperature Coefficient of V _{oc}	%/ º C	-0.28			

Temperature Characteristics				
Temperature Coefficient of I _{sc}		0.06		
Temperature Coefficient of V _{oc}		-0.28		
Temperature Coefficient of P _{max}		-0.19		

Mechanical Characteristics				
Dimensions		1245 x 2456		
Thickness		38.5		
Surface	m²	3.06		
Weight	Kg/m ²	62.5		
Encapsulation material		PVB		
External glass (triple laminated security glass)	mm	6mm/3mm/6mm (tempered)		
Air chamber	mm	12mm		
Internal glass (double laminated security glass)	mm	5mm/5mm (tempered)		

Thermal/Acoustic and Properties				
Solar factor (g)		0.32		
U-value	W/m ² K	2.88 W/m ² K		
Acoustic attenuation	dB	42		
Limits				

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Maximum Voltage	$V_{sys}(V)$	1000
Operating Temperature	°C	-40 /+ 85











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