



Polysolar

# Polysolar Photovoltaic Glazing

**STC Product Specifications for thin-film  
glass/glass laminate BIPV glazing units**

PS-A- Series modules  
PS-C- Series modules  
PS-D-Series modules

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## Technical Specifications PS-A- Series

<b>Model Type</b>		<b>PS-A Series Amber Opaque Module</b>
<b>Active Material of Cell</b>		Amorphous Silicon (a-Si), single junction
<b>Material for Encapsulation</b>		Polyvinylbutyral (PVB), thickness: 0.76 mm
<b>Front Cover</b>		Float glass, thickness: 3.2 mm
<b>Back Cover</b>		Glass thermally strengthened 3.2mm thick [scs=10,000psi]
<b>Wiring Material</b>		Tin & silver coated copper ribbon 0.1mm
<b>Junction Box</b>	<b>Bypass diode</b>	Yes
	<b>IP Class</b>	IP 65
<b>Cable length</b>		Downward 800mm (+), 600mm (-)
<b>Connecting Cable Plug</b>		Rated voltage 1000 Volts D.C. Plug/Socket MC4 compatible Ø 4mm, cable cross section 2.5mm <sup>2</sup>
<b>Transparency</b>		No opaque/ White Paint Interlayer
<b>Frame</b>		No frameless glass-laminate module (edge clamp: 13mm +/-1)
<b>Dimensions</b>	<b>Width</b>	1100mm+2/-1mm
	<b>Length</b>	1300mm +2/-1mm
	<b>Thickness</b>	7.0± 0.5mm
	<b>with junction box</b>	21.2± 1.0mm
<b>Weight</b>		24.0± 0.5Kg
<b>Certifications</b>		IEC 6164 & 61730 by TÜV- Rheinland MCS – NQA certified, CE Mark

## Electrical Specifications PS-A-Series

Polysolar Model	Class	Stabilized Performance				Initial Performance				Max over current rating	Temp Co-efficient	Max System Voltage
		V <sub>mp</sub>	I <sub>mp</sub>	V <sub>oc</sub>	I <sub>sc</sub>	V <sub>mp</sub>	I <sub>mp</sub>	V <sub>oc</sub>	I <sub>sc</sub>			
		(V)	(A)	(V)	(A)	(V)	(A)	(V)	(A)			
Electrical tolerance ± 10%												
PS-A-871	90W	102	0.91	137	1.15	111	1.06	140	1.21	2.0A	Isc +0.003%/K Voc -0.30%/K Pmpp -0.17%/K Vmpp -0.31%/K	1000Vdc (IEC) 600Vdc (UL)
PS-A-870	95W	103	0.94	137	1.20	111	1.13	140	1.26			
PS-A-87A	100W	103	1.00	138	1.24	111	1.19	141	1.30			
<b>Irradiance (W/m<sup>2</sup>)</b>	<b>Pmpp (W)</b>	<b>Vmpp (V)</b>		<b>I<sub>mp</sub> (A)</b>		<b>V<sub>oc</sub> (V)</b>		<b>I<sub>sc</sub> (A)</b>				
1000 (STC)	103	103		1.00		138		1.24				
800	85	102		0.83		136		1.02				
600	62	101		0.61		134		0.76				
400	41	100		0.41		133		0.49				
200	19	100		0.19		130		0.23				

The units electrical ratings are measured under Standard Test Conditions (STC) and have been delivered on the specific table of electrical characteristics as shown above. A photovoltaic module may produce more current and/or voltage than reported at STC. Sunny, cool weather and reflection from snow or water can increase current and power output. Therefore, the values of I<sub>sc</sub> and V<sub>oc</sub> marked on the units should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor capacities, fuse sizes, and size of controls connected to PV output. [STC]: 1000 W/m<sup>2</sup>, AM 1.5, 25 °C. The exactly measured electrical characteristics are shown on the label of the units. All electrical data is average production data and is subject to a measuring equipment tolerance; module nominal power is subject to a tolerance of ±2% and power class is sorted on basis of +4.99Wp/-0Wp. Manufacturer warranty: 5 years Performance Warranty; 10years @ 90% of power rating & 25years @ 80% of power rating.



## Technical Specifications PS-C-Series

<b>Model Type</b>	<b>PS-C Series Amber Tinted Transparent Module</b>	
<b>Active Material of Cell</b>	Amorphous Silicon (a-Si), single junction	
<b>Material for Encapsulation</b>	Polyvinylbutyral (PVB), thickness: 0.76 mm	
<b>Front Cover</b>	Float glass, thickness: 3.2 mm	
<b>Back Cover</b>	Float Glass 3.2mm thick	
<b>Wiring Material</b>	Tin & silver coated copper ribbon 0.1mm	
<b>Junction Box</b>	<b>Bypass diode</b>	Yes
	<b>IP Class</b>	IP 67
<b>Cable length</b>	Upwards 800mm (+), 600mm (-)	
<b>Connecting Cable Plug</b>	Rated voltage 1000 Volts D.C. Plug/Socket MC4 compatible Ø 4mm, cable cross section 2.5mm <sup>2</sup>	
<b>Transparency</b>	20 +/-3.5% (average transmission T(%) at 400-800nm)	
<b>Frame</b>	No frameless glass-laminate module (edge clamp: 13mm +/-1)	
<b>Dimensions</b>	<b>Width</b>	1100mm+2/-1mm
	<b>Length</b>	1300mm +2/-1mm
	<b>Thickness</b>	7.0± 0.5mm
	<b>with junction box</b>	26.± 1.0mm Available as DGU also
<b>Weight</b>	24.0± 0.5Kg	
<b>Certifications</b>	IEC 6164 & 61730 by TÜV- Rheinland MCS – NQA certified, CE Mark	

## Electrical Specifications PS-C-Series

Polysolar Model	Class	Stabilized Performance				Initial Performance				Max over current rating	Temp Co-efficient	Max System Voltage
		V <sub>mpp</sub> (V)	I <sub>mp</sub> (A)	V <sub>oc</sub> (V)	I <sub>sc</sub> (A)	V <sub>m</sub> (V)	I <sub>mp</sub> (A)	V <sub>oc</sub> (V)	I <sub>sc</sub> (A)			
Electrical tolerance ± 10%												
PS-C-902	85W	103	0.85	137	1.11	106	1.05	140	1.15	2.0A	I <sub>sc</sub> +0.09%/K V <sub>oc</sub> -0.34%/K P <sub>mp</sub> -0.20%/K	1000Vdc (IEC) 600Vdc (UL)
PS-C-901	90W	103	0.90	137	1.15	111	1.06	140	1.20			
PS-C-900	95W	103	0.95	138	1.20	111	1.07	141	1.23			
Irradiance (W/m <sup>2</sup> )	P <sub>mp</sub> (W)	V <sub>mp</sub> (V)	I <sub>mp</sub> (A)	V <sub>oc</sub> (V)	I <sub>sc</sub> (A)							
1000 (STC)	92	106	0.86	139	1.04							
800	65	98	0.66	127	0.83							
600	52	98	0.59	127	0.76							
400	34	98	0.30	126	0.45							
200	15	97	0.15	125	0.19							

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## Technical Specifications PS-D-Series

<b>Model Type</b>		<b>PS-D Series Black Micromorph Module</b>
<b>Active Material of Cell</b>		Amorphous and microcrystal silicon – tandem double –junction cell
<b>Material for Encapsulation</b>		White Polyvinylbutyral (WPVB), thickness: 0.45 mm
<b>Front Cover</b>		Float glass, thickness: 3.2 mm
<b>Back Cover</b>		Float glass, thickness: 3.2 mm
<b>Wiring Material</b>		Tin & silver coated copper ribbon 0.1mm
<b>Junction Box</b>	<b>Bypass diode</b>	Yes
	<b>IP Class</b>	IP 67
<b>Cable length</b>		Downward 800mm (+), 600mm (-)
<b>Connecting Cable Plug</b>		Rated voltage 1000 Volts D.C. Temperature range -40 to 85°C Plug/Socket MC4 compatible Ø 4mm, cable cross section 2.5mm <sup>2</sup>
<b>Transparency</b>		No opaque/ White back
<b>Frame</b>		No frameless glass-laminate module (edge clamp: 13mm +/-1)
<b>Dimensions</b>	<b>Width</b>	1100mm+2/-1mm
	<b>Length</b>	1300mm +2/-1mm
	<b>Thickness</b>	6.8± 0.5mm
	<b>with junction box</b>	27± 1.0mm
<b>Weight</b>		24.0± 1.0Kg
<b>Certifications</b>		EN/IEC 61646 & 61730 by TÜV- Rheinland MCS – NQA certified, CE Mark

## Electrical Specifications PS-D-Series

Polysolar Model	Class	Stabilized Performance				Initial Performance				Max over current rating	Temp Co-efficient	Max System Voltage
		Vmp p (V)	Imp p (A)	Voc (V)	Isc (A)	Vmp p (V)	Imp p (A)	Voc (V)	Isc (A)			
Electrical tolerance ± 10%												
PS-D-125	125W	70	1.83	91	2.22	72	2.04	92	2.28	2.5A Max fuse rating 5A	Isc +0.07%/K Voc -0.33%/K Pmpp -0.27%/K	1000Vdc (IEC) 600Vdc (UL)
PS-D-130	130W	71	1.86	92	2.22	73	2.09	93	2.29			
PS-D-135	135W	72	1.90	92	2.23	74	2.14	94	2.30			
<b>Irradiance (W/m<sup>2</sup>)</b>	<b>Pmpp (W)</b>	<b>Vmpp (V)</b>		<b>Imp p (A)</b>		<b>Voc (V)</b>		<b>Isc (A)</b>				
1000 (STC)	137	72		1.90		92		2.23				
800	110	72		1.52		91		1.79				
600	83	73		1.14		90		1.34				
400	55	73		0.76		88		0.90				
200	28	72		0.38		85		0.45				

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