



STILO GRAFICA group

[NT-130/135/140/145AX]

µc-Si tandem Pv module
(silicio microamorfo Technology)

■ Specifiche prodotto:

Modello	NT-145AX	NT-140AX	NT-135AX	NT-130AX
Potenza Nominale [W][±5%]	145	140	135	130
Tensione a vuoto [V]	78.4	78.4	78.4	77.6
Corrente di cortocircuito [A]	2.67	2.59	2.52	2.45
Tensione massima [V]	62.5	62.3	62.3	62.2
Corrente massima [A]	2.32	2.25	2.17	2.09
Valori iniziali	Pmax: vedere manuale d'installazione Voc: circa del 4% superiore rispetto alla tensione stabilizzata			
Tensione Massima di Sistema [V]	1000	1000	1000	1000
Dimensioni [mm]	1414*1114*35.3			
Peso [Kg]	20.5			
Connettore	MC 4			
Sezione cavo [mm ²]	2.5			

■ Coefficienti Temperatura:

Potenza Nominale [W]	-0.28% / °C
Tensione a vuoto [V]	-0.32% / °C
Corrente di cortocircuito [A]	0.07% / °C

I dati sopra riportati corrispondono a valori stabilizzati in condizioni di test standard (STC) [Irradiazione: 1000 W/m², Spettro: AM1.5, Temperatura cella: 25°C (77°F)]

Tutti i dati elettrici sono soggetti a una tolleranza di +/- 10%, salvo indicazione contraria. Le specifiche riportano solo valori di riferimento e sono soggette a modifiche senza preavviso.

Potenza garantita:

mantiene più del 90% della potenza nominale minima per 10 anni. Mantiene più dell'80% della potenza nominale minima per 25 anni. Garanzia del prodotto: privo di difetti per 5 anni.

Prestazioni prodotto assicurate presso la Munich RE

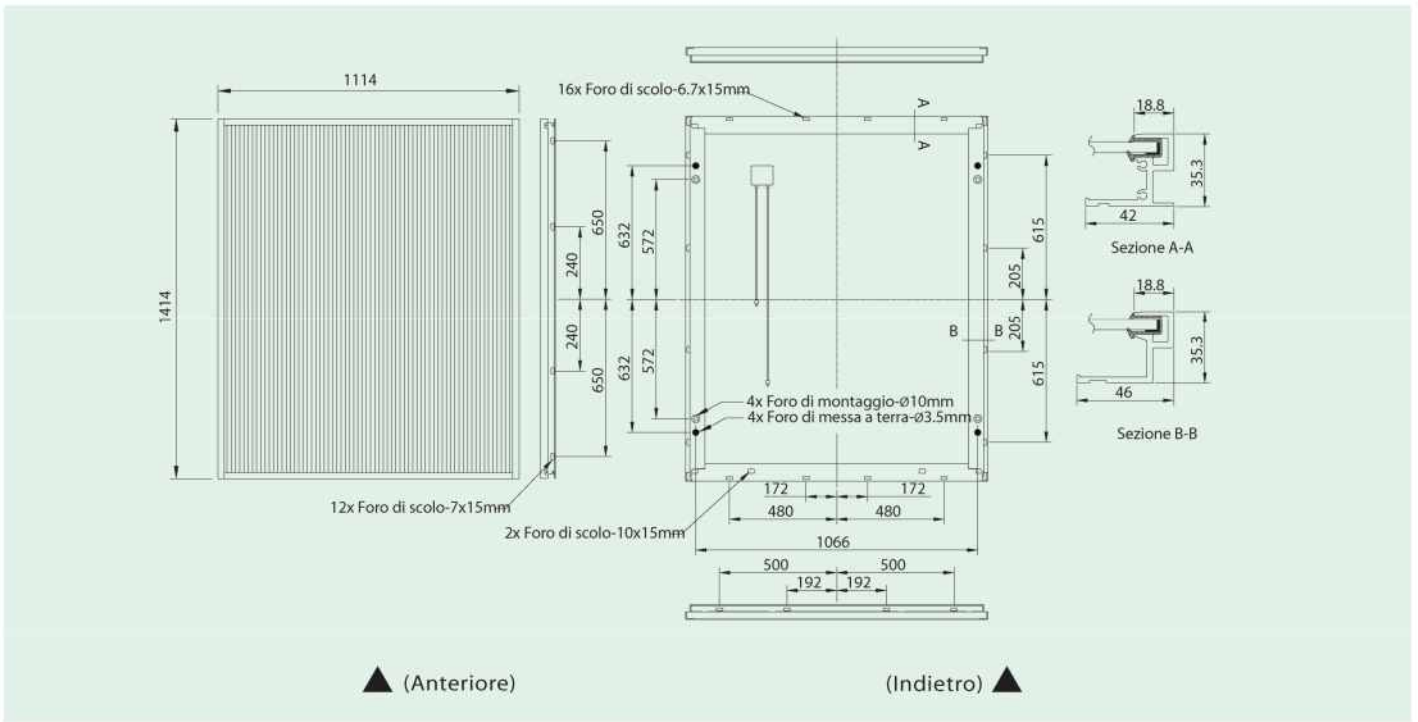
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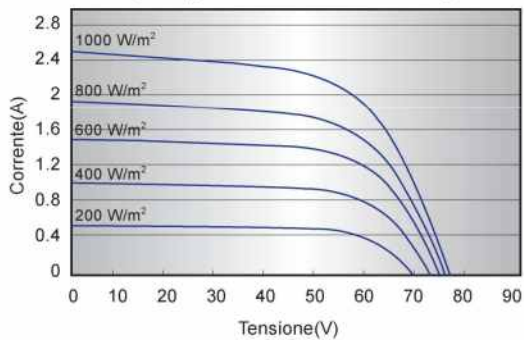
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www.stilografica-group.com - paolo.g@stilografica-group.com

Certificati:

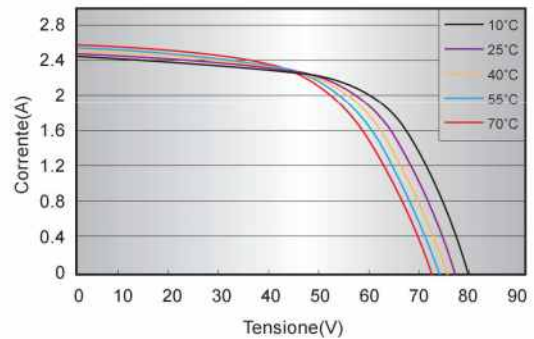
- IEC 61646/61730
- CE
- ISO 9001:2000
- ISO 14001:2004



**Caratteristiche di Corrente vs. Tensione
(Temperatura di cella : 25°C)**



**Caratteristiche di Corrente vs. Tensione
(Irraggiamento : 1000 W/m²)**



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Solar Module SG-2000 Series

High-quality crystalline solar panels ensure maximum energy yield. Every module type is designed, from frame to connection box, for cost-effective system integration.

Features

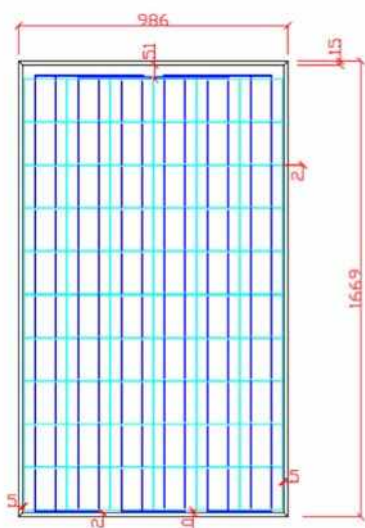
- High-power module using 156mm polycrystalline silicon solar cells with high module conversion efficiency
- Each module is individually tested to ensure that field performance meets the specifications
- Waterproof and low maintenance junction box with 4-6 terminal connection block and cable of 4mm² in cross section and at least 90cm in length
- 3 pcs of 10A, 10V bypass diodes minimize the power drop caused by shade
- High-transmission tempered glass, encapsulation with EVA resin, and a weatherproof backsheet, plus clear anodized aluminum frame for extended outdoor use



Certifications



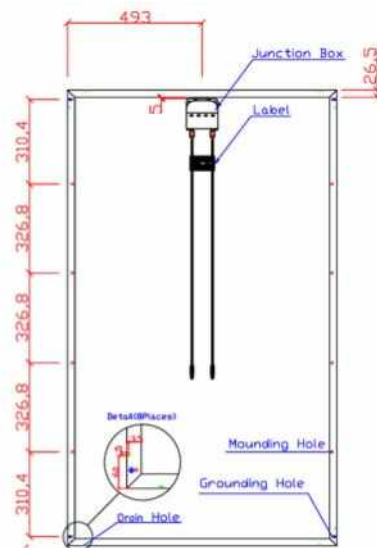
Module Diagram



Front



Side



Backside

Electrical Data

Model	SG-2200	SG-2250	SG-2300	SG-2350
Power Rating (Pmp)	220W	225W	230W	235W
Maximum Current (Imp)	7.76A	7.81A	7.91A	7.93A
Maximum Voltage (Vmp)	28.36V	28.80V	29.08V	29.64V
Short-circuit Current (Isc)	8.38A	8.41A	8.47A	8.49A
Open-circuit Voltage (Voc)	36.96V	37.02V	37.55V	37.58V
Power Tolerance				0 ~ +3%
Maximum System Voltage				1000 VDC
Normal Operating Cell Temperature				44 ±2°C
Series Fuse Rating (A)				15A
Temperature Range	-40 C to 85°C			
Damp Heat	85%RH			
Heavy Loading	5400 pascals			
Hail Impact	25mm stainless ball at 23m.s			
Temperature Coefficient	Pmp : -0.460 %/°C Isc : 0.065 %/°C Voc : -0.346 %/°C			

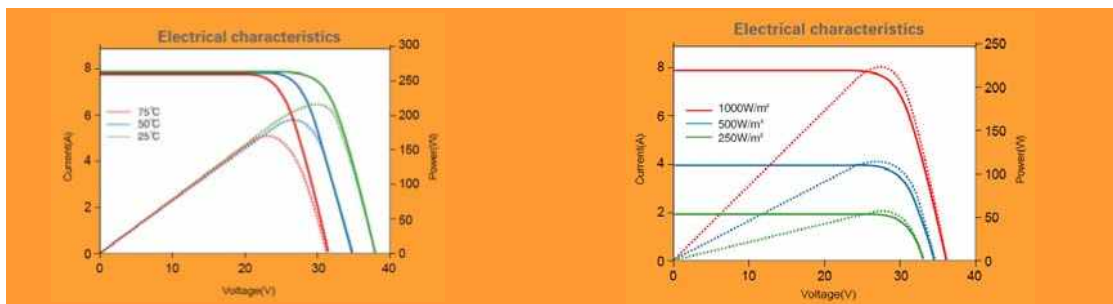
Mechanical Characteristics

Dimensions	(L)1669mm x (W)986mm x (D)40mm
Weight	18.5kg
Solar Cells	60pcs (156mm x 156mm) in 6x10 matrix connected

Module Warranty

- 5-year guarantee for workmanship
- 10-year guarantee of max. 10% loss of power
- 25-year guarantee of max. 20% loss of power

Qualification Test Parameters



At STC (Standard Test Conditions). 1000W/m², 25°C cell temperature, AM1.5 spectrum

CIGS MODULE ADVANTAGES:

High Conversion Efficiency.

No degradation and 12% Hi-efficiency.

Lower Cost & Steady Supply.

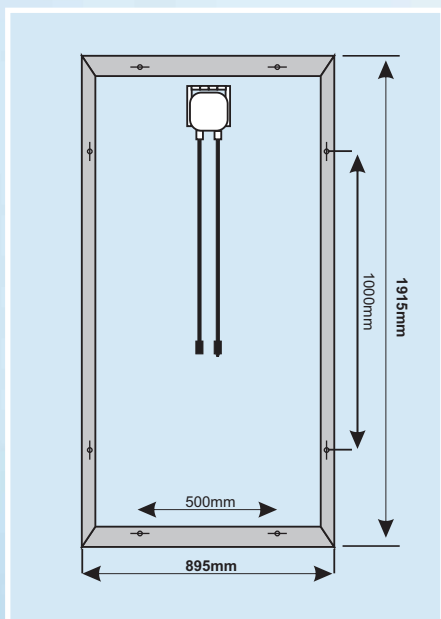
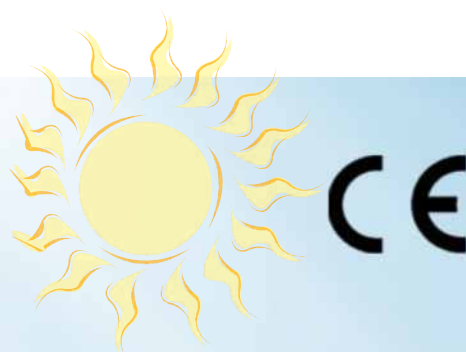
Its unit price is lower comparing with traditional panel for it is based on thin-film technology and never affected by silicon shortage.

Stability in the Functions.

It ensures maximum power output even under the shadow and adverse weather conditions

Extensive Use in the Life.

Various demands can be met as flexible function designing & smooth exterior make it easy to installation.



CIGS xxx W					
Pmax	125Wp	130Wp	135Wp	140Wp	143Wp
Imp	5.20A	5.20A	5.30A	5.35A	5.35A
Isc	6.65A	6.68A	6.68A	6.70A	6.70A
Voc	34.8V	36.5V	37.0V	38.8V	38.8V
Vmp	24.2V	24.8V	25.5V	26.4V	26.7V
NOCT	45°				
Max voltaggio sistema	500 V				
Range di temperatura	-40 a +85°C				
Impatto grandine	fino a 25mm / 90km/h				
Umidità relativa	fino al 100%				
Dimensioni con cornice	1915x895x35mm (±2)				
Dimensioni laminato	1908x886x5mm (±2)				
Peso	22 Kg con cornice - 19Kg laminato				
Tolleranza	±5%				
Coefficienti temperatura	Isc (α) 2.54mA/°C - Voc(β) -0.23V/°C - Pmax(γ) -1.31W/°C				
Carico superficiale	550Kg/m ²				

CIS module

CIS=Cu In Se₂ / Cu In Ga Se₂