

POLYCRYSTALLINE HEE210U 245 Watt

The solar module HEE210U is manufactured with high efficiency cells made by industry leading suppliers to guarantee a long lasting reliable power output. Robots allocate the 3 Bus Bar polycrystalline cells equally and interconnect the ribbon efficiently. The lightly textured glass of great optical transmission and diffused light collection covers the homogenous colored cells to create an esthetic module layout of high performance and quality design. The double reinforced anodized aluminum frame makes a rigid structure and flexible handling ideal for residential, commercial rooftop or ground mounted installations.



**HIGH
EFFICIENCY**



**FULL BLACK
(optional)**



3 BUS BAR



**RESISTANCE TO
ICE AND SNOW**



**LIGHTLY
TEXTURED GLASS**



**LOW IRRADIATION
CONDITION**



**PYRAMIDAL
GLASS (optional)**



60 CELLS



**4 mm GLASS
(optional)**



1.20 m CABLE



**12 YEAR
WARRANTY**



**5.400 Pa
LOADING CAPACITY**



HIGH POWER OUTPUT

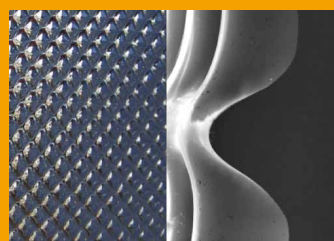
- 225-245 Wp. Wide range of output
- Homogeneous esthetics
- Maximum reliability

DIMENSIONS

Length x Width: 1680 x 990 mm
Thickness: 40mm
Weight: 22 kg

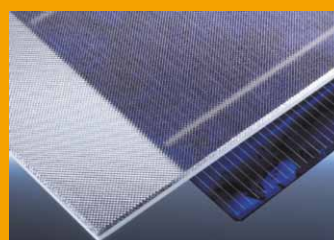
BIPV

Built in roof mounting systems providing maximum sealing.



PYRAMIDAL GLASS

The pyramidal structure of solar glass ensures high production at low radiation conditions and reduces the reflection of incident light. At vertical installation the annual energy output is increased by 10%.



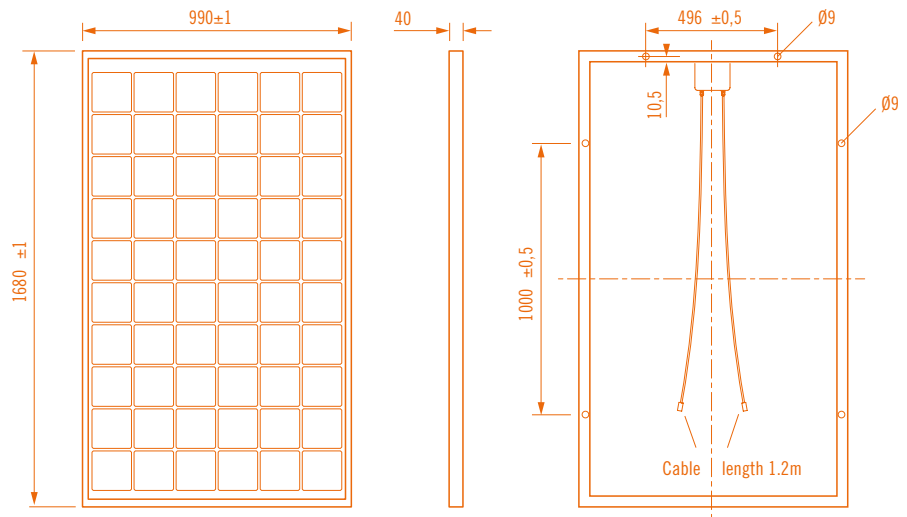
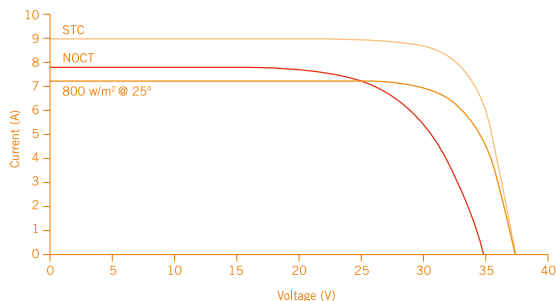
LIGHTLY TEXTURED GLASS

We use the lightly textured glass as our standard, which provides better properties on heat dissipation and reflection loss in comparison to plain usual solar glass.

SOLAR MODULE

HEE210U

245 Watt



	HEE210UA68	HEE210UA67	HEE210UA66	HEE210UA65	HEE210UA64
POWER	245	240	235	230	225

STC (Standard Test Conditions)

Nominal power P_{MPP} (W)	245	240	235	230	225
Nominal voltage U_{MPP} (V)	30.43	30.35	29.9	29.5	29.2
Nominal current I_{MPP} (A)	8.05	7.91	7.86	7.8	7.74
Open circuit voltage V_{OC} (V)	37.65	37.55	37	36.8	36.7
Short circuit current I_{SC} (A)	8.6	8.55	8.48	8.38	8.29

STC: Irradiation 1000W/m² – Air mass AM 1.5 – Cell temperature 25°C

NOCT (Normal Operating Cell Temperature)

Nominal power P_{MPP} (W)	175	171	167	164	161
Nominal voltage U_{MPP} (V)	26.84	26.77	26.3	26.02	25.73
Nominal current I_{MPP} (A)	6.52	6.39	6.35	6.07	6
Open circuit voltage V_{OC} (V)	33.8	33.69	33.2	33.02	33.02
Short circuit current I_{SC} (A)	6.97	6.9	6.73	6.51	6.44

NOCT: Cell temperature in normal condition (= 45°) with Irradiation 800 W/m² – environmental temperature 20°C – Wind speed 1m/s.

ELECTRICAL AND THERMAL CHARACTERISTICS

System tension (V): 1000	Temp. Coeff. V_{OC} (%/°C) -0.32	Temp. Coeff. P_{MPP} (%/°C) -0.42
Reverse current (A): 12	Temp. Coeff. I_{SC} (%/°C) +0.07	Operating Temp. -40 till +85 °C

MECHANICAL FEATURES

Cells	60 in series, 3BB, 6"
Glass	Lightly textured, high transparency, anti-reflective, hardened
Back sheet	Multi-layer lamination PVF and PET
Frame	Anodized aluminum in standard module / BIPV assembling
Connection	2x1.2m of cable, MC4 type connectors
Junction box	Protection index IP65, 3 diodes by-pass

MEASURING TOLERANCES P_{max} : +/-3%

Warranty: 12 years for manufacturing defects and 80% nominal power at 25 years



Specifications are subject to change without notice. HELIUS ENERGY EUROPE S.L. (HELIENE) 09/2012

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