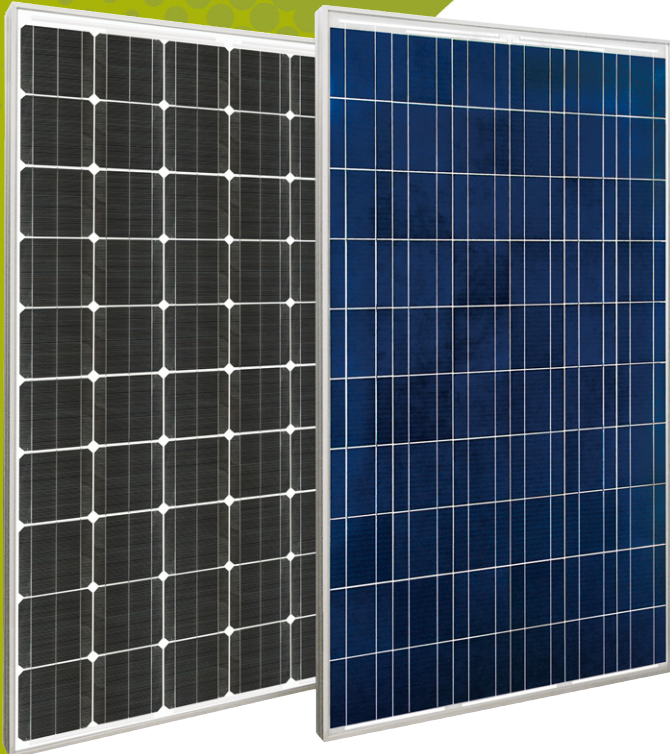


Greener than Green



ITS Premium ITS Economy

For ITS Premium and ITS Economy modules we guarantee European cell and module production

High Performance

The ITS Premium (visual A) and ITS Economy (visual B) series are designed for residential and mid-size rooftop installations. High quality production combined with strictest test procedures ensure maximum longevity and highest performance in the long term.

Approved Components

ITS photovoltaic modules are manufactured based on upgraded crystalline solar cells. They feature excellence in manufacturing and yields. Equipped with Tyco plug connectors that are touch-safe and protected against inverse polarity the ITS modules ensure a stable energy output. The module is provided with a hollow chamber profile frame with drainage holes.

ITS Extra Yield Plus

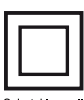
The series is sorted in classes of 190/200/210/220/230 Wp. With our TÜV certified and regularly calibrated measurement equipment we guarantee for each module to achieve at least nominal power and up to 10 Wp above (according to ITS Flashlist).

Greener than Green

The cell and module process of ITS improves the overall production efficiency of the PV-industry while achieving highest production quality. The raw material used for ITS Cells is usable only by ITS' unique process, resulting in the lowest carbon footprint for crystalline modules.

Long Term Warranty

Our modules come with a 5 year statutory warranty. Performance guarantee is 90% of output power for 10 years and 80% for 25 years, according to the Warranty Conditions of ITS.



Schutzklasse II

ITS Premium/Economy – PolyUp

STC*

Pmax	Wp	190	200	210	220	230
Vmpp	V	27.20	28.00	28.70	28.80	29.10
Impp	A	7.00	7.10	7.30	7.60	7.90
Voc	V	35.00	35.80	36.00	36.60	36.70
Isc	A	7.40	7.60	7.70	8.00	8.20
IR****	A	15	15	16	16	16
η	%	11.45 – 12.04	12.05 – 12.64	12.65 – 13.24	13.25 – 13.85	13.86 – 14.45

NOCT**

Pmax	Wp	135	145	153	160	167
Vmpp	V	25.30	25.50	25.60	25.80	26.20
Voc	V	33.40	33.60	33.70	34.00	34.30
Isc	A	6.05	6.30	6.45	6.70	6.90

Temperature Coefficients

Pn	-0.46 %/K
Voc	-0.35 %/K
Isc	0.05 %/K

ITS Premium/Economy – MonoUp

STC*

Pmax	Wp	190	200	210	220	230
Vmpp	V	27.30	27.80	28.20	28.60	29.10
Impp	A	7.00	7.20	7.50	7.70	7.90
Voc	V	35.00	35.40	35.70	36.00	36.30
Isc	A	7.50	7.70	8.00	8.30	8.50
IR****	A	15	15	16	17	17
η	%	11.45 – 12.04	12.05 – 12.64	12.65 – 13.24	13.25 – 13.85	13.86 – 14.45

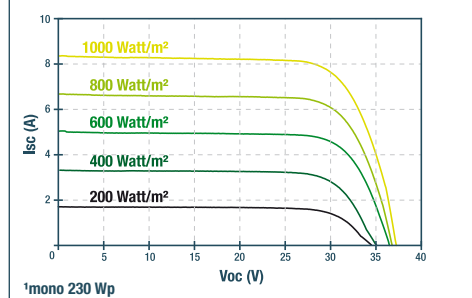
NOCT**

Pmax	Wp	135	143	151	158	166
Vmpp	V	24.70	25.20	25.60	25.90	26.40
Voc	V	32.70	32.90	33.10	33.30	33.60
Isc	A	6.00	6.20	6.40	6.60	6.80

Temperature Coefficients

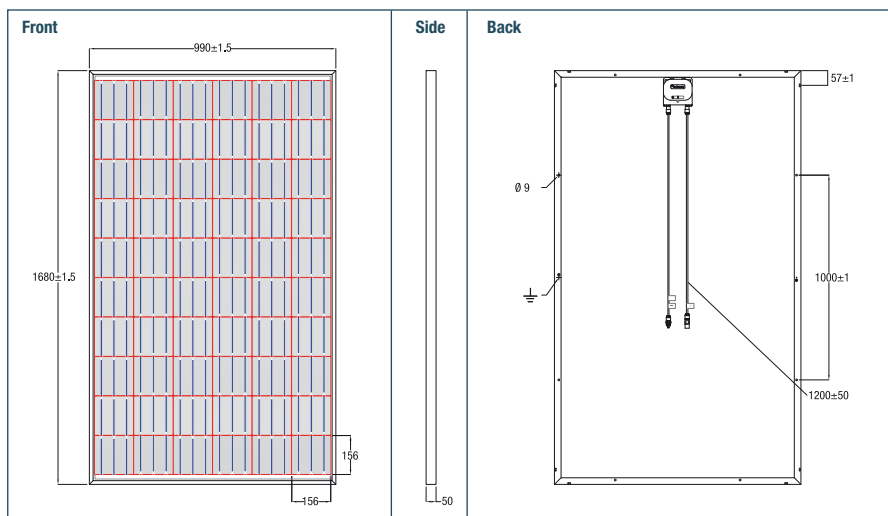
Pn	-0.50 %/K
Voc	-0.37 %/K
Isc	0.03 %/K

I/V Curve¹



Both Module Types

NOCT**	45°C
Module efficiency reduction at 200 W/m ² ***	-0.6 (± 0.3)% abs.
Max. System Voltage	1000 V
IP protection level	IP 65
Module Technology	Glass-Foil-Laminate with aluminum frame
Module Design	Cover material: high transparent solar glass (tempered), 4 mm Encapsulation: EVA-Solar Cells-EVA Back material
No. and Type of Solar Cells	60 crystalline solar cells, 156 x 156 mm, 180 μm ± 30 μm
Cables	Junction box with Tyco Plug connectors, 2 x 4 mm ² , length: each 1.2 m
Bypass-Diodes	3 pcs.
Dimensions (l x w x h)	1680 x 990 x 50 mm
Weight	24 kg
Operating Temperature Range	-40 ... +80°C
Ambient Temperature Range	-40 ... +45°C
Mechanical ratings	Suction pressure of 2400 Pa approved (Wind speed 130 km/h with safety factor 3), load of 5400 Pa approved
Compliant with	IEC 61215 IEC 61730
Measuring tolerances	Pmax @ STC ± 5%, all other electric parameters ± 10%



* STC – Standard Test Conditions, measurement conditions: intensity irradiation 1000 W/m², spectral distribution AM 1.5, temperature 25 ± 2°C, according to standard EN 60904-3

** NOCT – Normal Operation Cell Temperature, measurement conditions: irradiation intensity 800 W/m², AM 1.5, temperature 20°C, wind speed 1 m/s.

*** Reduced performance with the decrease in the intensity of irradiation of 1000 W/m² and 200 W/m², temperature 25°C according to EN 60904-1

**** Reverse current power rating: operation of the modules with an external power source is only permitted with a string fuse with a release current of < 2 x Isc @ STC*

This datasheet conforms to EN 50338.

Innotech Solar reserves the right to change specifications without notice.