



Preliminary product image

**EEEEASILY
MORE.**

Excellent. Efficient. Expert.

The Value-Added Modules of the IBC SOLAR Line.

IBC MonoSol 270 CS4 Smart, 275 CS4 Smart

Solar modules made of monocrystalline silicon with intelligent module junction box



25 year linear power and 15 year product warranty¹



Positive power tolerance (-0/+5 Wp)



Increased mechanical stability (5400 Pa)²



German warrantor



100% tested quality



Optimized energy yield

IBC SOLAR – a strong global partner for solar power

IBC SOLAR AG has been successful for more than **30 years** and is amongst the leading international energy companies, which provide high-performance system solutions in every size and for every application with intelligent photovoltaic systems. The **economic strength and financial independence** is confirmed by globally recognised rating agencies.

Smart Systems for Solar Power thanks to perfectly matched components. **More than 1,000 highly qualified partners** around the world, as well as **more than 3,000 megawatts of installed power** and over **160,000 photovoltaic systems** all underline the high level of expertise of IBC SOLAR.

Convince yourself of the energy solutions by IBC SOLAR!

TECHNICAL DATA

IBC MonoSol	270 CS4 Smart	275 CS4 Smart
Article number	2003800016	2003800019
Electrical data (STC):		
STC Power Pmax (Wp)	270	275
STC Nominal Voltage Umpp (V)	31.49	31.9
STC Nominal Current Imp (A)	8.58	8.64
STC Open Circuit Voltage Uoc (V)	34.7	34.7
STC Short Circuit Current Isc (A)	9.10	9.10
Module Efficiency (%)	16.6	16.9
Power Tolerance (Wp)	-0/+5	-0/+5

Electrical data (NOCT):		
800 W/m ² NOCT AM 1.5 Power Pmax (Wp)	197.39	201.12
800 W/m ² NOCT AM 1.5 Nominal Voltage Umpp (V)	28.36	28.89
800 W/m ² NOCT AM 1.5 Open Circuit Voltage Uoc (V)	34.7	34.7
800 W/m ² NOCT AM 1.5 Short Circuit Current Isc (A)	7.31	7.35
Relative Efficiency Reduction at 200 W/m ² (%)	4.7	4.7

Temperature coefficient:		
NOCT (°C)	46	46
Tempcoeff Isc (%/°C)	+0.049	+0.049
Tempcoeff Voc (mV/°C)	0	0
Tempcoeff Pmpp (%/°C)	-0.439	-0.439

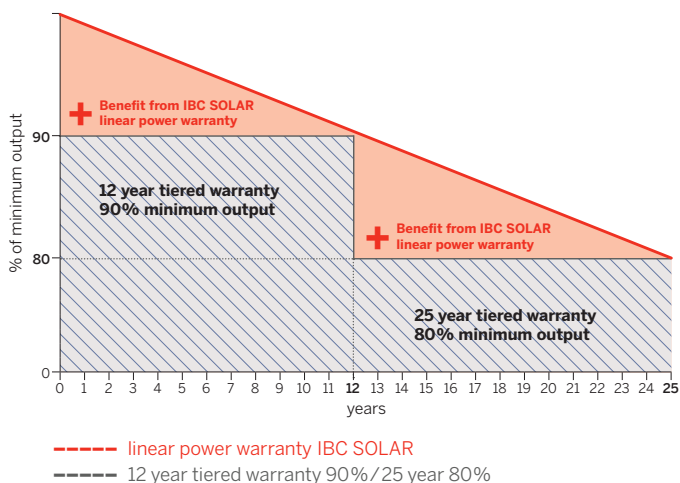
Operating conditions:	
Max. System Voltage (V)	1000
Application Class	A
Reverse Current Ir (A)	20
Current value string fuse (A)	15
Fuse protection from parallel strings	4

Mechanical properties:	
Dimensions (L × W × H in mm)	1640 × 992 × 40
Weight (kg)	19.5
Load capacity (Pa) ²	5400
Front sheet (mm)	3.2 (low-iron photovoltaic glass and anti-reflective coating)
Frame	anodized aluminium, sturdy hollow-chamber frame
Cells	6 × 10 monocrystalline silicon cells
Connection type	MC4 (IP65)

Warranties and certification:	
Product warranty	10 years ¹
Power warranty	25 years, linear
Certification	IEC 61215 (in preparation), IEC 61730-1/-2 (in preparation), ISO 9001, ISO 14001, OHSAS 18001

Packaging information:	
Number of modules per pallet	26
Number of pallets per 40' container	28
Number of pallets per lorry	30
Dimensions incl. pallet (L × W × H in mm)	1685 × 1150 × 1130
Gross weight incl. pallet (kg)	500
Stackability per pallet	3-fold

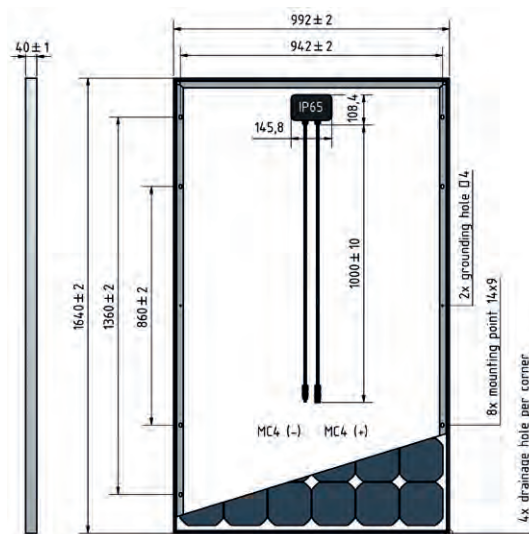
25 year linear power warranty by IBC SOLAR



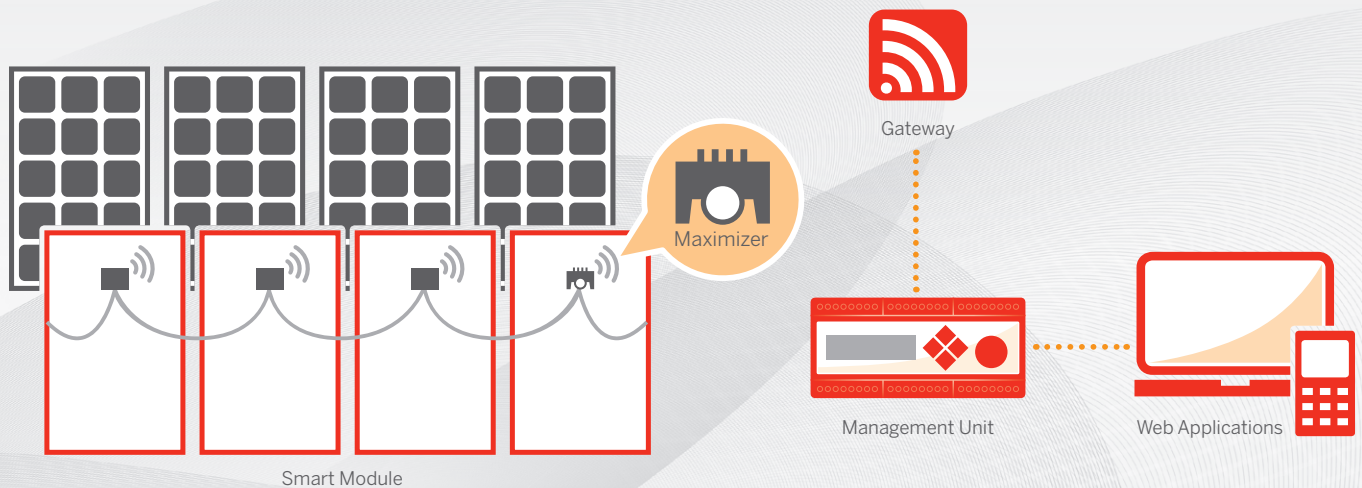
¹⁾ The 15 year product warranty is only valid for installations within Europe and Japan. The warranty requires installation according to the valid installation instructions. Standard test conditions: 1000 W/m² irradiation with a spectral distribution of AM 1.5 and a cell temperature of 25°C. 800 W/m², NOCT. Information according to EN 60904-3 (STC). All values according to DIN EN 50380. Errors and changes reserved.

The precise conditions and content can be taken from the respectively valid version of the product and power warranty, which you can obtain from your IBC Premium Partner.

²⁾ Tested according IEC 61215 for snow loads up to 5,400 Pa (5.4 kN/m²).



Presented by:



IBC SOLAR modules incorporate innovative power electronics from Tigo Energy

IBC SMART MODULE

IBC Smart Module

IBC SOLAR modules incorporate innovative power electronics from Tigo Energy to achieve module-level diagnostics and maximum energy yield through DC power optimization in addition to the safety features.

Integration of the module maximizer into the junction-box enables patented Smart Curve technology, which allows up to 30 % longer strings and significant balance-of-system (BOS) cost savings.

System Architecture

IBC SOLAR system components work together with any inverter to maximize energy yield and communicate wirelessly through the gateway, allowing users to monitor system performance in real-time.

Key Features

Safer Installations:

Module level disconnects allow instant shutdown while the monitoring function provides real-time data for additional safety precautions.

Lower O&M Costs:

Monitoring allows operation and maintenance to be done efficiently by focusing on real-time data.

Maximize Roof Space:

Allows systems to be installed tighter and in systems with uneven string lengths.

Boost Power Production:

Module level mismatch is eliminated through impedance matching capability.

Lower BOS Costs:

Tigo Energy® Smart-Curve™ allows systems to be designed more efficiently reducing BOS costs and allowing longer strings.

Inverter Compatibility:

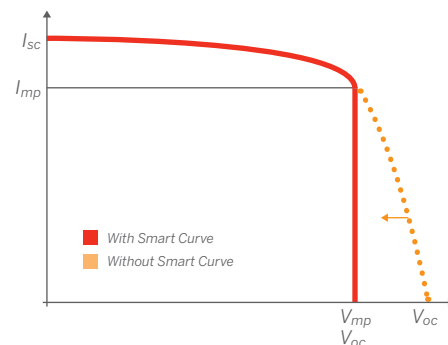
Fully integrated design allows use of any inverter and does not require extra hardware.

Smart curve technology

Module-integrated Tigo smart technology limits the open circuit voltage range for each module and allows longer strings to be designed.

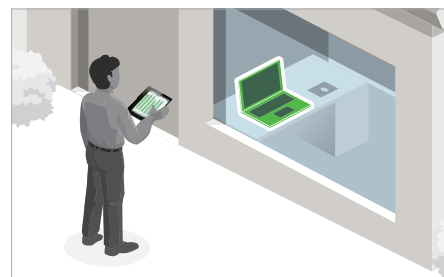
The maximum open circuit voltage is programmed in the factory.

- ❑ Hardware voltage clamp prevents over-voltage
- ❑ Design up to 30 % longer strings
- ❑ Fewer combiner boxes, fuses and wiring
- ❑ Smaller resistance losses



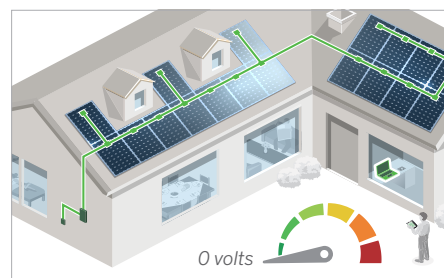
Cost-Saving Maintenance

Module-level performance monitoring and remote maintenance lead to less trips to site, less time spent on site, and higher system uptime. Access your system remotely via internet and smart phone apps.



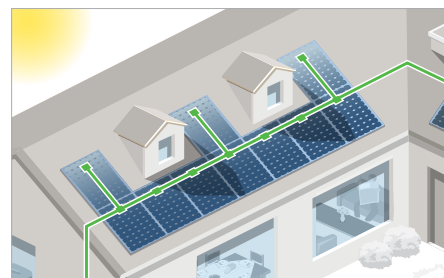
Superior Safety

With the Tigo solution, whenever the AC power or inverter is turned off, DC wires are automatically de-energized, protecting installers, maintenance personnel, and firefighters.



More Power From Each Module

IBC CS4 Smart modules optimized by Tigo eliminate mismatch losses. With Tigo's Optimization, shade and dirt do not drag down the performance of a system that much.



Constraint-Free Design

Flexible string design allows modules on multiple roof constructions, orientations, and more modules per system. Choose the right electronics and any inverter.

