

0322.0804 Swiss Premium

# M285-60-b GG

Frameless glass-glass module / monocrystalline /  
285Wp / black



Made in Deitingen (Switzerland)



Meets highest aesthetic requirements



Safety glass for overhead glazing and facades



Lifespan of over 50 years due to glass-glass technology



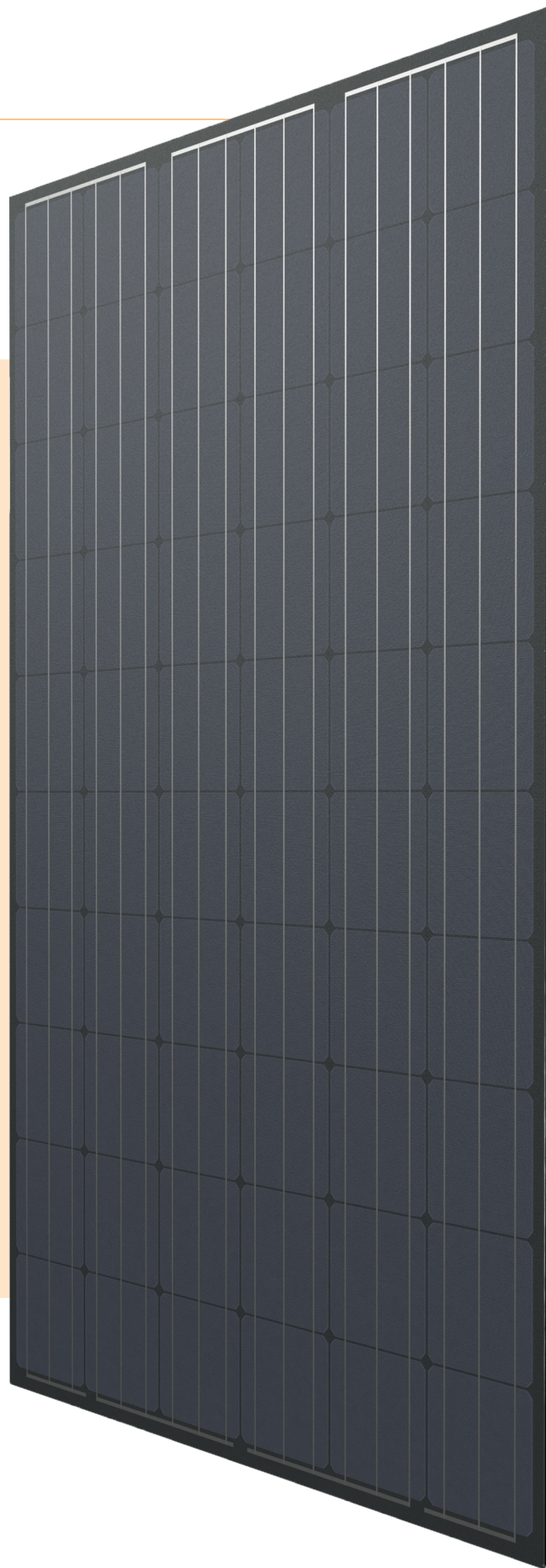
Optionally available for 1500V system voltage



Full traceability of all raw materials



No tariff restrictions (for exports to USA & EU)



The trend-setting Megasol glass-glass modules' front and back side consist of two identical glass panels. By deploying a particularly high-quality encapsulation material, Swiss Premium solar modules feature a very long lifespan of over 50 years.



innovation in power



Electrical data STC

Nominal power (Pmpp)	285 Wp
Nominal voltage (Umpp)	31.8 V
Nominal current (Impp)	8.97 A
Open circuit voltage (Uoc)	38.6 V
Short circuit current (Isc)	9.33 A
Cell efficiency	20.40 %
Module efficiency	17.55 %
Power sorting	-0/+5 %

STC (Standard Test Conditions): irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C, AM 1.5  
Measuring tolerances ±3 % (Pmpp); ±10 % (Umpp, Impp, Uoc, Isc)

Electrical data at partial load

800 W/m<sup>2</sup>

Nominal power (Pmpp)	215 Wp
Nominal voltage (Umpp)	29.4 V
Nominal current (Impp)	7.31 A
Open circuit voltage (Uoc)	36.2 V
Short circuit current (Isc)	7.26 A

Measuring tolerances ±5 % (Pmpp); ±10 % (Umpp, Impp)

Thermal properties

Nominal operating cell temperature (NOCT)	45 ±2 °C
Temperature coefficient Uoc	-0.26 %/°C
Temperature coefficient Isc	+0.031 %/°C
Temperature coefficient Pmpp	-0.37 %/°C

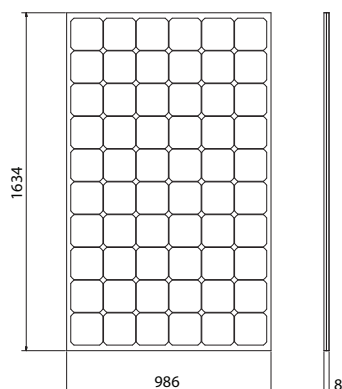
Operating conditions

Temperature range	-40 ... +85 °C
Max. system voltage	1000 V optionally available for 1500 V
Max. reverse current	20 A
Max. string fuse	16 A
Max. wind and snow loads *	13'000 N/m <sup>2</sup>
Hail resistance	ø40 mm at 23 m/s Hail protection class 4
Application class (acc. to IEC/EN61730)	A

Fire protection	Top and back layer are made of heat-resistant glass. The component is considered to be non-combustible material as defined by the Cantonal Fire Insurances.
Protection class	II
Salt spray test	IEC/EN 61701 I+II
Ammonium corrosion test	IEC/EN 62716

\* The maximum loads also depend on the substructure as well as the installation situation. If the requirements are higher than IEC/EN 61215, a project-specific dimensioning of the mounting system is necessary.

Technical drawing



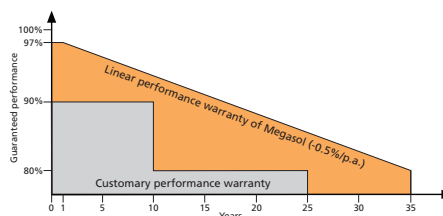
Note: The instructions in the installation manual must be strictly complied with. Further information about approved utilization of products can be found in the installation manual or can be requested from the technical service.

General data

Laminate structure	Glass-glass
Cell type	Monocrystalline
Cell size	156x156 mm
Number of cells (matrix)	60 (6x 10)
Colour between cells	Black
Frame	Frameless
Front side	3.2 mm solar glass High-transmission, tempered/toughened, nano-finished/antireflective surface
Encapsulation material	Special EVA (UV+ / IR+) with lowest water vapour permeability
Back side	3.2 mm solar glass Tempered/toughened
Junction box	3 bypass diodes, IP 67
Cable cross section	4 mm <sup>2</sup>
Connectors	MC4 compatible, IP 67
Dimensions (LxWxH) ±3.0 mm	1634x986x8 mm
Modular dimensions (LxW)	Depending on the installation situation
Weight	28.2 kg

Quality and warranty

Quality characteristics	PID-free (no potential induced degradation) Yield-optimized low-light performance Full traceability of all raw materials
Product warranty	10 years
Linear performance warranty	35 years



Relative efficiency level in relation to the minimal output (%). At least 97% of the minimum output during the first year. Afterwards, max. 0.5% degradation per annum. At least 92.5% of the minimum output after 10 years. At least 85% of the minimum output after 25 years. At least 80% of the minimum output after 35 years. All data within the measuring tolerances. Warranties according to the respective latest Megasol Warranty Conditions which can be found on [www.megasol.ch/warranty](http://www.megasol.ch/warranty).



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