VIASOLIS
PV Glass Manufacturing & Architectural Energy

ViaSolis OPTIMUS 280 - 310
Glass/Glass 72 cell module

Glass/Glass modules – advanced choice for those who look for durability, safety, efficiency.
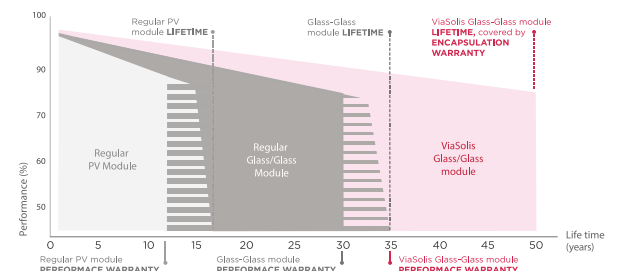
KEY FEATURES

50+ year lifespan. Edge-sealant protection ensures superior atmospheric and humidity resistance.

Back glass instead of plastic ensures durability and robust protection against UV, moisture, ammonia and salt corrosion.

Higher heat dispersal. Glass is a better thermal conductor than a plastic back-sheet in standard modules ensuring higher efficiency in hot climates.

The possibility to **bond the PV modules** with adhesive material.

100 % PID free. Potential induced degradation is eliminated at cell level with special ARC structure and in module level by using PVB lamination foil.

Complies to **IEC 61215:2005, IEC 61730:2004 standard**

Wider light spectrum absorbed. PVB lamination foil utilises the light spectrum starting from 280nm.

Possibility to adjust: dimensions, forms, colours and efficiencies for BIPV solutions.

Optimized by solaredge

LAMINATION FOIL:
- **Black**
- **White**
- **Transparent**

Why Glass/Glass technology?

Glass/Glass (G/G) modules are produced by laminating PV cells between two glass sheets, instead of standard glass and plastic.

Compared with standard modules, the same glass material resistance and heat dispersal is more durable in fluctuating temperatures and hot and humid climate zones, ensuring a **50** year lifespan.

Unlike other G/G modules on the market, ViaSolis uses innovative edge-sealant technology to protect PV cells from humidity.

Why Solar Edge?

- Up to 25% more energy
- Mitigates partial shading and manufacturing mismatch-loss
- Module level monitoring
- Module-level voltage shutdown for installer and firefighter safety

RELIABLE QUALITY

- **Positive power tolerance 0/+5 W**
- **100% double quality control ensures modules are defect free**
- **Fully automated production lines eliminates human mistakes**
- **Manufactured and assembled in EU (Vilnius, Lithuania)**

MANUFACTURER WARRANTY

- **50-year laminates warranty**
- **35-year product warranty**
- **35-year linear performance guarantee**

Electrosuisse Swiss Certification Body

IEC 61215:2005
IEC 61730:2004 standard

SEV   CE

ViaSolis OPTIMUS 280-310
Glass/Glass 72 cell module

MECHANICAL PARAMETERS

Cell (mm)	156x156
Weight (kg)	34,7
Dimensions (L×W×H) (mm)	1990 x 991 x 7,5
Cable Cross Section Size (mm^2) / Plugs	6 / MC4 compatible
No. of Cells in the Module	72 (12x6)
Junction Box	SolarEdge J-Box
Front / Back Glass (mm)	3,2 / 3,2
Packaging Configuration	23 per pallet

WORKING CONDITIONS

Maximum System Voltage	DC 1000V (EU)
Operating Temperature	-40 °C~+85°C
Maximum Current	15A
Maximum Static Load, Front (wind / snow)	10000Pa / 10000Pa
NOCT	43,6°C
Safety Class	II

I-V CURVE

Current-Voltage Curve

Current-Voltage Curve


Current-Voltage Curve

ELECTRICAL PARAMETERS

TYPE	ViaSolis OPTIMUS 72.P 280	ViaSolis OPTIMUS 72.P 285	ViaSolis OPTIMUS 72.P 290	ViaSolis OPTIMUS 72.P 295	ViaSolis OPTIMUS 72.P 300	ViaSolis OPTIMUS 72.P 305	ViaSolis OPTIMUS 72.P 310
Rated Maximum Power at STC (Wp)	280	285	290	295	300	305	310
Open Circuit Voltage (Voc/V)	45.44	45.48	45.52	45.55	45.59	45.63	45.65
Maximum Power Voltage (Vmp/V)	36.34	36.41	36.49	36.56	36.64	36.71	36.79
Short Circuit Current (Isc/A)	8.07	8.20	8.35	8.49	8.64	8.78	8.93
Maximum Power Current (Imp/A)	7.71	7.83	7.95	8.07	8.19	8.31	8.43
Module Efficiency [%]	14.20	14.45	14.70	14.96	15.21	15.47	15.72
Power Tolerance	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W
Temperature Coefficient of Isc (αIsc)	+0.05%/°C	+0.05%/°C	+0.05%/°C	+0.05%/°C	+0.05%/°C	+0.05%/°C	+0.05%/°C
Temperature Coefficient of Voc (βVoc)	-0.34%/°C	-0.34%/°C	-0.34%/°C	-0.34%/°C	-0.34%/°C	-0.34%/°C	-0.34%/°C
Temperature Coefficient of Pmax (γPmp)	-0.42%/°C	-0.42%/°C	-0.42%/°C	-0.42%/°C	-0.42%/°C	-0.42%/°C	-0.42%/°C

STC	Irradiance 1000W/m2, Module Temperature 25°C, AM 1.5
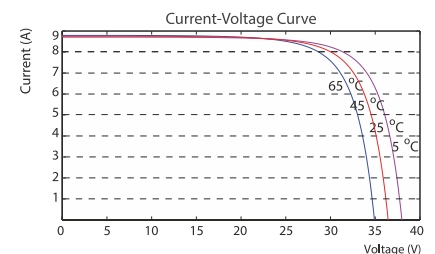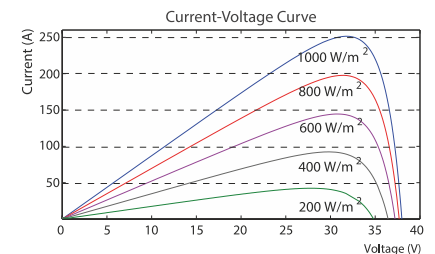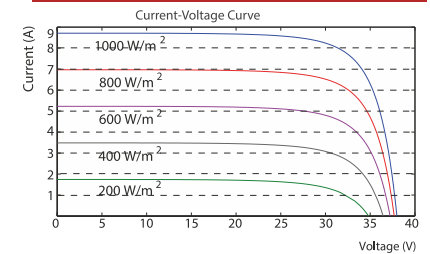
String Lengths (computed automatically by SolarEdge Site Designer)

Module Power		280	285	290	295	300	305	310
MINIMUM string size with SolarEdge inverter	1ph				8			
	3ph				16			
	3ph-MV				18			
MAXIMUM string size with SolarEdge inverter	1ph	18	18	18	17	17	17	16
	3ph	40	39	38	38	37	36	36
	3ph-MV	45	44	43	43	42	41	41
String size with Non-SolarEdge inverter					According to inverter design rules			

ENGINEERING DRAWING

The module is certified with Alumero Click 6.8 L-200 clamps

Approved for:

-10000 Pa snow load
-10000 Pa wind load

■ clamp area
■ clamp mounting area

Output Voltages and Currents

Operating Output Voltage when connected to SolarEdge Inverter	5-60	Vdc
Operating Output Voltage when connected to Non-SolarEdge Inverter	5-Voc of module	Vdc
Maximum Output Current when connected to SolarEdge Inverter	15	Adc
Maximum Output Current when connected to Non-SolarEdge Inverter	10	Adc
Output in Standby mode with SolarEdge inverter or with SMI and Non-SolarEdg inverter (when disconnected from inverter or inverter off)	1	Vdc

Junction Box Standard Compliance

Fire Safety	VDE-AR-E 2100-712:2013-05
PV Junction Box Safety	IEC62109-1 (class II safey, TUV-SUD), UL1741 (TUV-Rheinland & CSA)
PV Junction Box	En50548 (TUV-SUD), UL3730 (TUV-Rheinland & CSA)
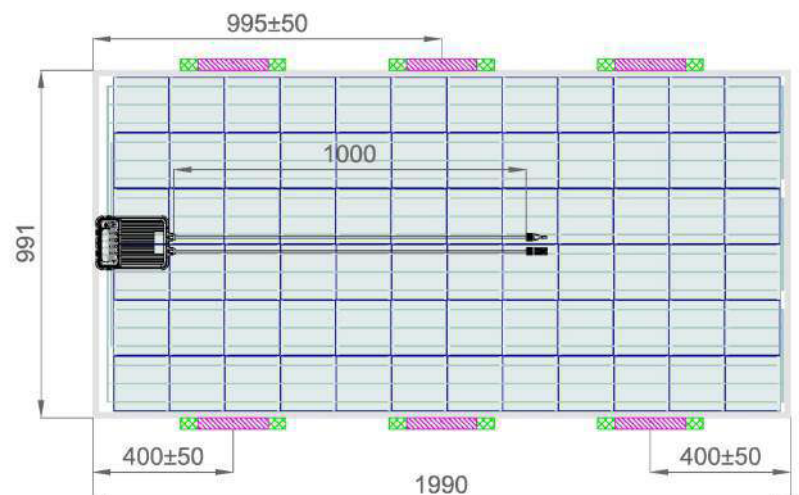
Specifications subject to technical changes and tests. Manufacturer reserves the right of final interpretation.