



**INTEGRATION GLASS/GLASS
PERC60**

PERC 290-305 Wp

Schweizer



**Exquisitly designed
in-roof panel**

Inroof system, BIPV-Typ EN 50583, Category A

2 x 2 mm strong, hardened and scratchresistant solar glass

Protection of cells against microcracks through double glass composite

Easy to install, reliable operation

Rainproof like a tiled roof (SIA 232/1)

Excellent mechanical load values, compressive load up to 5,400 Pa ²

Hail class HW 3

**Optimized for
performance**

PID-free PERC high performance solar cells

Antireflective coated solar glass

Low-light optimized

Positively classified -0/+4.99 Wp

Industry-leading NMOT values

**Highest quality
standards**

Manufactured according to
DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
BS OHSAS 18001:2007

PV-module type approval according to IEC 61215:2016 ³

PV-module safety qualification according to IEC 61730:2016 ³

Fire class: hard roofing (B roof T1, Euro class E)

**Guaranteed
performance ¹**

30 years of linear performance guarantee

20 years product guarantee, optional extension to 30 years

Total Care for the entire system (optional)

¹ For detailed information please consult the CS Wismar GmbH warranty conditions

² Tested in laboratory of CS Wismar GmbH

³ Subject to recertification

INTEGRATION GLASS/GLASS 290 | 295 | 300 | 305 PERC60

Performance STC

Under standard Test Conditions STC:
1000 W/m²; spectrum AM 1.5;
Cell temperature 25°C
Measurement tolerance STC:
P_{mpp} ±3%; I_{sc} ±10%; U_{oc} ±10%

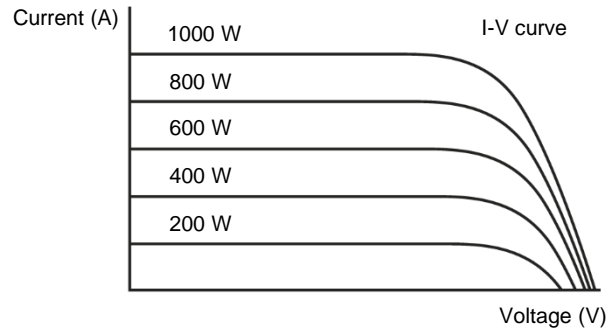
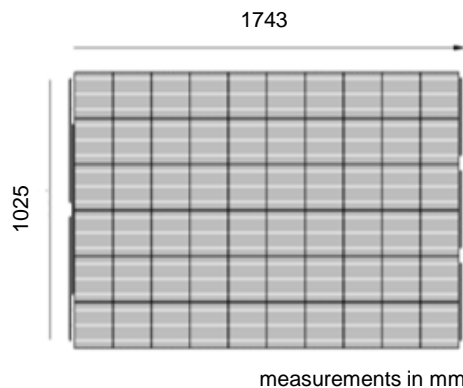
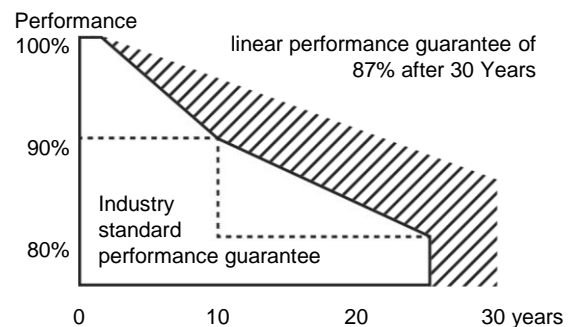
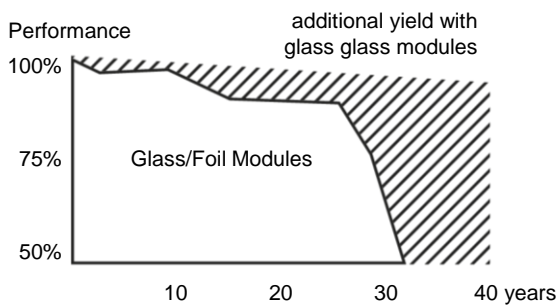
Nominal Power P _{mpp} (Wp)	290	295	300	305
Open Circuit Voltage U _{oc} (V)	38,83	39,15	39,28	39,62
Voltage U _{mpp} (V)	32,26	32,52	32,72	32,94
Short Circuit Current I _{sc} (A)	9,58	9,66	9,76	9,87
Current I _{mpp} (A)	8,99	9,07	9,17	9,26
Efficiency η (%)	16,2	16,5	16,8	17,1

Reduction of module efficiency at reduction from 1000 W/m² to 200 W/m²: 2,5% ± 0,2% (relative)

Performance NMOT

Nominal operating temperature of module
800 W/m², NMOT, AM 1.5

Nominal Power P _{mpp} (Wp)	227	231	235	239
Open Circuit Voltage U _{oc} (V)	36,31	36,61	36,74	37,05
Voltage U _{mpp} (V)	31,6	31,86	32,05	32,29
Short Circuit Current I _{sc} (A)	7,74	7,81	7,89	7,97
Current I _{mpp} (A)	7,17	7,24	7,32	7,39



Other Technical Specification

Max. system voltage	1000 V
Weight	22.0 ± 0.5 kg
Reverse Current Load I _R	15 A
Junction box	IP 67 with 3 bypass diodes
Connectors	IP 67, MC4
Fire rating	class C
Operating temperature	-40°C ... +85°C
Design load: snow	1.600 Pa *
Max test load	2.400 Pa
Design load: wind	1.600 Pa *
Max test load	2.400 Pa
Outer dimensions	1743 x 1025 mm
Raster dimensions	1725 x 993 mm

Thermal Properties

TC P _{mpp}	-0.39 %/K
TC U _{oc}	-0.28 %/K
TC I _{sc}	0.040 %/K
NMOT	45 +/- 2 °C

Material Used

No. of cells	60 cells
Type of cells	mono perc
Front	hardened solar glass
Frame	Solrif frame
Frame height	16 mm
Module height	35 mm

* safety factor 1.5

