



**INTEGRATION GLASS/GLASS  
M54**

MONOCRYSTALLINE 270–280 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 <sup>2</sup>

Hail class HW 3

**Optimized for  
performance**

PID-free monocrystalline 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 <sup>3</sup>

PV-module safety qualification according to IEC 61730:2016 <sup>3</sup>

Fire class: hard roofing (Euro class E)

**Guaranteed  
performance <sup>1</sup>**

30 years of linear performance guarantee

20 years product guarantee, optional extension to 30 years

Total Care for the entire system (optional)

<sup>1</sup> For detailed information please consult the CS Wismar GmbH warranty conditions

<sup>2</sup> See backside for detailed test loads

<sup>3</sup> Subject to recertification

# INTEGRATION GLASS/GLASS 270 | 275 | 280 M54

## Performance STC

Under standard Test Conditions STC:  
1000 W/m<sup>2</sup>; spectrum AM 1.5;  
Cell temperature 25°C  
Measurement tolerance STC:  
P<sub>mpp</sub> ±3%; I<sub>sc</sub> ±10%; U<sub>oc</sub> ±10%

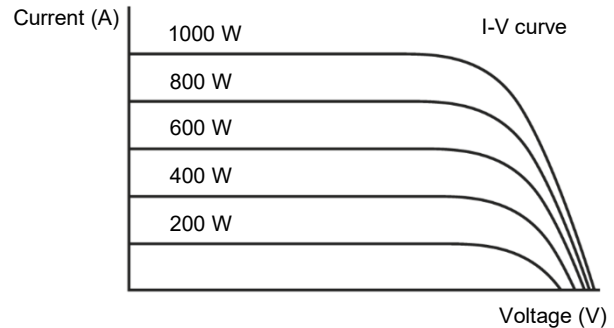
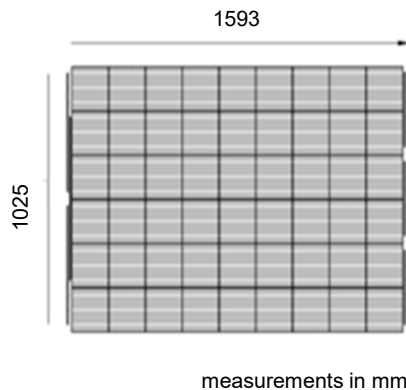
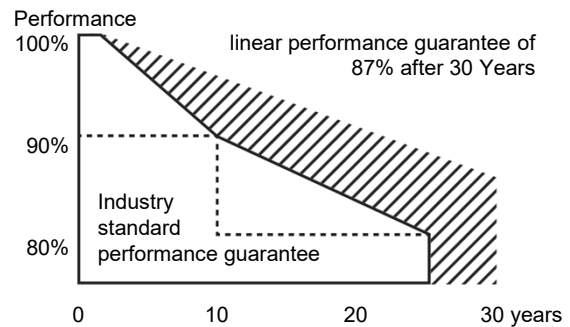
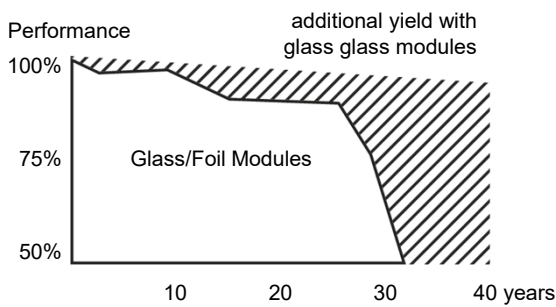
Nominal Power P <sub>mpp</sub> (Wp)	270	275	280
Open Circuit Voltage U <sub>oc</sub> (V)	35,55	36,22	36,27
Voltage U <sub>mpp</sub> (V)	29,45	29,63	29,82
Short Circuit Current I <sub>sc</sub> (A)	9,74	9,84	9,89
Current I <sub>mpp</sub> (A)	9,17	9,28	9,39
Efficiency η (%)	16,5	16,8	17,1

Reduction of module efficiency at reduction from 1000 W/m<sup>2</sup> to 200 W/m<sup>2</sup>: 2,4% ± 0,3% (relative)

## Performance NMOT

Nominal operating temperature of module  
800 W/m<sup>2</sup>, NMOT, AM 1.5

Nominal Power P <sub>mpp</sub> (Wp)	210	215	219
Open Circuit Voltage U <sub>oc</sub> (V)	33,25	33,87	33,92
Voltage U <sub>mpp</sub> (V)	28,73	29,00	29,16
Short Circuit Current I <sub>sc</sub> (A)	7,87	7,95	7,99
Current I <sub>mpp</sub> (A)	7,32	7,41	7,49



## Other Technical Specification

Max. system voltage	1000 V
Weight	20.0 ± 0.5 kg
Reverse Current Load I <sub>R</sub>	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	3.600 Pa *
Max test load	5.400 Pa
Design load: wind	1.600 Pa *
Max test load	2.400 Pa
Outer dimensions	1593 x 1025 mm
Raster dimensions	1575 x 993 mm

\* safety factor 1.5

## Thermal Properties

TC P <sub>mpp</sub>	-0.39 %/K
TC U <sub>oc</sub>	-0.28 %/K
TC I <sub>sc</sub>	0.040 %/K
NMOT	45 +/- 2 °C

## Material Used

No. of cells	54 cells
Type of cells	monocrystalline
Front	hardened solar glass
Frame	Solrif frame
Frame height	16 mm
Module height	35 mm

