

## INTEGRATION N Glass / Glass M 108 SOLRIF

MONOCRYSTALLINE 445 WP



**2 x 2 mm thick tempered  
solar glass**



**In-roof solution, BIPV type  
EN 50583, category A**



**Snow load 5,400 Pa**



### Sophisticated design with in-roof solution

PID-free monocrystalline  
High-performance cells

### Performance-optimized Module design

PID-free monocrystalline  
High-performance cells

### Highest standards in production and quality assurance

Made according to  
ISO 9001:2015  
ISO 14001:2015  
ISO 45001:2018  
ISO 50001:2018

### Industry-leading Guarantee<sup>1</sup>

30-year linear  
performance guarantee

Protection of cells from microcracks  
by double-glazed unit

Anti-reflective coated solar glass

PV module type certification  
according to IEC 61215:2021<sup>3</sup>

20-year product warranty

Easy to assemble,  
safe in operation

Optimized for low light conditions

PV module safety certification  
according to IEC 61730:2018<sup>3</sup>

Excellent mechanical load values,  
compressive load up to 5,400 Pa<sup>2</sup>

positively classified -0/+4.99 Wp

Hard roofing, P-BWU03-I-16.3.237  
Fire class: hard roofing (Euroclass  
E)

Hail class HW 3

Industry-leading NMOT values

<sup>1</sup> For detailed information, please refer to the warranty conditions of CS Wismar GmbH.

<sup>2</sup> Detailed test loads can be found on the reverse side.

<sup>3</sup> Re-certification is reserved.

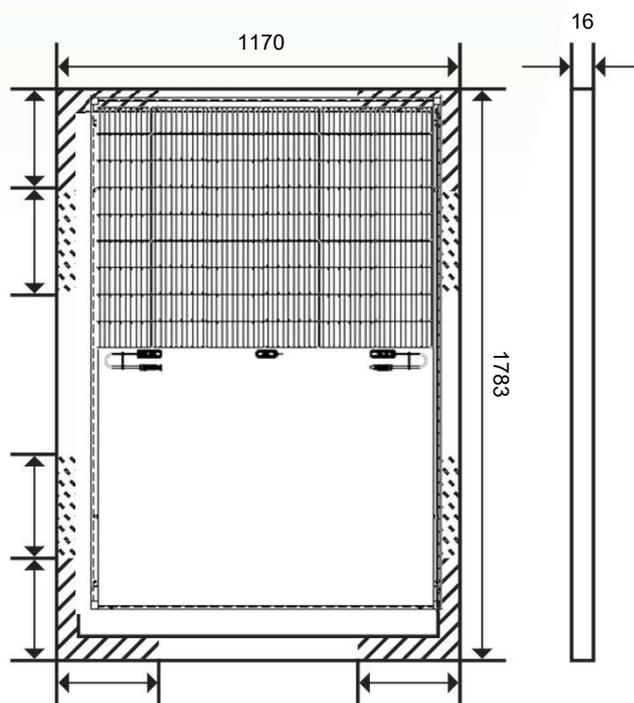
### Performance STC

Under Standard Test Conditions (STC):  
1000 W/m<sup>2</sup>; Spectrum AM 1.5;  
Cell temperature 25°C  
Measurement tolerances STC:  
P<sub>mp</sub> ±3%;  
I<sub>sc</sub> ±10%; U<sub>oc</sub> ±10%

Rated power PMPP(Wp)	<b>445</b>
Open circuit voltage Uoc(V)	38,66
Voltage U <sub>mp</sub> (V)	32,88
Short-circuit current I <sub>sc</sub> (A)	14,56
Current I <sub>mp</sub> (A)	13,56
Wirkungsgrad $\eta$	21,4
Reduction in module efficiency when decreasing from 1000 W/m <sup>2</sup> to 800 W/m <sup>2</sup> : 3% ±0.5% (relative)	

### Other technical specifications

Max. system voltage	1000 V
Weight	25.0 ±0.5 kg
Reverse current resistance I <sub>R</sub>	25 A
Junction box	IP65/ IP68
Connectors	IP65 / IP68, MC4
Fire protection class	Class C
Cable length	2 x 1,20 m
Design load: Snow	5.400 Pa *
Maximum test load	8.100 Pa
Design load: Wind	1.600 Pa *
Maximum test load	2.400 Pa
External dimensions	1783 x 1170 mm



### Thermal properties

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

### Materials used

Number of cells	108 half-cut cells
Cell type	monokristallin
Glass	tempered solar glass
Solrif frame	16 mm anodized aluminum



Management System  
ISO 9001:2015  
ISO 14001:2015  
ISO 45001:2018  
www.tuv.com  
ID 900026381

